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Peter Reim
Editor-in-Chief

Dr. Elizabeth Buchanan
Research Services

Research Services
University of Wisconsin-Stout
152 Vocational Rehabilitation Building
Menomonie, WI 54751
(715) 232-1126

<http://www.uwstout.edu/rs/journal-of-student-research.cfm>

Foreword

Happy 125th birthday, Stout Manual Training School! At the end of the 19th century, a novel enterprise in education opened its doors in the sawmill town of Menomonie, Wisconsin. Schools like Stout were a response to an increasingly industrialized, urbanized, and socially progressive society. Looking back, one would think a small community in the Northwoods an unlikely birthplace for an institution like this. But the past 125 years have confirmed James Huff Stout's vision, and have proven the viability of the school's polytechnic mission.

Happy 15th birthday, UW-Stout *Journal of Student Research*! In the beginning of the 21st century, a publication was born here at Stout, dedicated to providing opportunities for our student researchers to publish their work. As in the early days of vocational training, where there was a recognition that 'hands-on' education "was not simply vocational training, but had value as general education and as mental training,"¹ the *Journal of Student Research* also has proven not just to be a vehicle by which student research might be disseminated, but has tremendous value for all those who submit their research articles. By submitting their work for publication, students learn valuable lessons about the purpose of research projects, and become aware that classroom research ideally impacts a broader audience. They learn the discipline of working within conventions that serve the needs of various discourse communities, and they learn the importance of collaboration with mentors, reviewers, and editors in a process that often takes the better part of a year to bring to fruition. There is a deep satisfaction that prevails among those who author this work, those who mentor and advise, and definitely for those who assemble and edit this journal!

From the first, publication of the JSR has been a collaborative effort. I would like to thank Research Services for making these fifteen volumes of the Journal possible, and for the assistance of many there in bringing this volume together; Angie Oaks deserves special thanks for all her efforts. Thanks also to Professor Ted Benson and the Cross-Media Graphics Communication teams, Dr. Kate Edenborg's editing classes, and Charles Lume and Alex DeArmond from Art and Design for assistance in assembling this volume from beginning to end.

As the adolescent offspring of a venerable institution, one tends to be a bit brash; well, so be it. We proudly present Volume XV of the *Journal of Student Research*. We hope you will enjoy it.

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Professional Communications and Emerging Media

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Cross-Media Practicum (GCM-443)

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Table of Contents

SENIORS.....

Adult Criminality Outcomes of Former Foster Care Youth: Implications for Policy and Practice
Lydia Pfluger
Faculty Advisor: Dr. Tina Lee.....10

Allies and the LGBTQ+ Community
Lucas Feldkamp
Faculty Advisor: Dr. Thomas Pearson.....25

Assessing Diversity Competence in Resident Advisors
Morgan Wolf
Faculty Advisor: Dr. Sarah Wood.....34

Autism Spectrum Disorder and Professional Job Interviews
Ethan Tostrud
Faculty Advisor: Dr. Mitchell Sherman.....50

Child Life Specialist: The Chief Executive Officer Perspective
Phylicia Fehlen
Faculty Advisor: Dr. Susan Wolfgram.....61

Depression & Anxiety in Critical Transitional Periods in an Adolescent's Life
Alexa DeMoe
Faculty Advisor: Dr. Colleen Etzbach.....74

Does Student Residence Influence Physical Activity at UW-Stout
De'Andre Jones
Faculty Advisor: Dr. Diane Klemme.....86

Exploring Job Qualifications for an Entry Level Apparel Position and Use of Technologies in Portfolio: From Undergraduates' Perspectives
Kang Chu Thao
Faculty Advisor: Dr. Joungyun Rhee.....100

Financial Knowledge and College Debt: Understanding Variables that Influence Student Borrowing Trends
Hillary Hoffman
Faculty Advisor: Dr. Nels Paulson.....113

Gender Disparities among Tanzanian Public Schools

Esuvat Molell
Faculty Advisor: Dr. Anne Hoel.....126

Hegemonic Masculinity as Predictor of Body Satisfaction

Meghan Verhagen
Faculty Advisor: Dr. Nels Paulson.....137

Intention and Consequence in Stem Cell Research

Justin Olson
Faculty Advisor: Dr. Timothy Shiell.....151

International Influence on the Displacement of Refugees from Yugoslavia

Shelby Schuppe
Faculty Advisor: Dr. Tina Lee.....165

Justifying Homosexuality: Globalization and its Impact

Lucas Feldkamp
Faculty Advisor: Dr. Nels Paulson.....173

GRADUATE.....

B Vitamin Supplementation in Treating Depression

Melissa Klemp
Faculty Advisor: Karen Osteno.....182

Torture in Art Throughout History

Anna Danielson (Senior)
Faculty Advisor: Dr. Lopamudra (Lopa) Basu.....196

FINE ART SUBMISSIONS

The Absence

Koua Xiong
Faculty Mentor: Bryan Ritchie.....207

Bad Feminist (for Roxane Gay)

Tiffany Lange
Faculty Mentor: Daniel Atyim.....212

Discrete

Karlaya Lee
Faculty Mentor: Charles Matson Lume.....218

Projections

Raine Nimmer
Faculty Mentor: Masako Onodera.....223

Adult Criminality Outcomes of Former Foster Care Youth: Implications for Policy and Practice

Lydia Pfluger¹

Senior, Human Development and Family Studies

Advisor: Dr. Tina Lee

Abstract

Evidence suggests that children who are involved in the foster care system are more likely to become involved in the criminal justice system as adults. Understanding the many obstacles foster youth encounter before, during, and after their time in the foster care system is important so that measures can be taken by policymakers and practitioners to combat their likelihood of becoming involved in crime. This research examines and compiles current literature on adult criminal outcomes of adult former foster youth and analyzes the federal Fostering Connections to Success and Increasing Adoptions Act of 2008 (Fostering Connections Act) in terms of how it addresses this issue. The purpose of this research study is to draw conclusive information based on prior research that will assist in modification of policies and programming to help deter foster youth from becoming involved in the criminal justice system as adults.

Keywords: former foster care youth, adult criminality, policy, aging out

Introduction

Every day the United States foster care system is responsible for providing services to over 402,000 children residing in out-of-home care, which refers to a variety of settings in which children who have been removed from their parents live: foster homes, group homes, and juvenile detention centers (Children's Bureau, 2014b). Children involved in the foster care system experience a high number of vulnerabilities throughout their daily lives and have a higher incidence of negative life situations as adults (Leve, Harold, Chamberlain, Landsverk, Fisher, & Vostanis, 2012; McGuinness & Schneider, 2007). In order to help these youth, federal-and-state level policies have been developed to improve the quality of life and wellbeing of foster children.

The goal of the foster care system is to provide children, whose

parents are unable to care for them, with a safe and permanent home (Child Trends, 2011). Many of the children who come into contact with the foster care system are from homes that suffer from poverty and experience related issues such as substance abuse, mental illness, incarceration, and homelessness (McGuinness & Schneider, 2007). Children entering foster care are more likely to have negative life experiences than the average population, including developmental delays and emotional and behavior problems (Leve et al., 2012). Former foster youth have a higher rate of homelessness, unemployment, juvenile justice involvement, public assistance usage, and significantly lower rates of high school graduation, college attendance, and income potential, among other issues as they age (Courtney, Dworsky, Brown, Cary, Love, & Vorhies, 2011). One of the more alarming outcomes is that former foster youth have a higher rate of criminal involvement and incarceration in adulthood compared to the general population (Courtney et al., 2011; DeGue & Spatz-Widom, 2009; Doyle, 2008; McMahon & Clay-Warner, 2002). Children who are emancipated from the foster care system, or "age-out," are an additionally vulnerable population. These youths are discharged from the system because their age precludes them from benefits. This emancipated population is more likely to be involved in crime than youth who have spent any amount of time in care (Courtney et al., 2011; Cusick, Courtney, Havlicek, & Hess, 2011).

Recognition of the particular vulnerabilities and needs of foster care youth and youth who age out of the system led to the development of the Fostering Connections to Success and Increasing Adoptions Act of 2008 (Lee, Courtney, & Tajima, 2014). In this paper, I analyze previous research to assess the link between the incidence of foster care placement and involvement in the adult criminal justice system as well as to examine a recent policy that attempts to combat this issue. I conclude by providing recommendations to improve outcomes of former foster youth throughout their lives.

Literature Review

Prior research demonstrates that nearly half of maltreated youth who have been removed from the home were arrested as an adults, and this population is much more likely to be arrested, convicted, and imprisoned in adulthood as compared to the general population (DeGue & Spatz-Widom, 2009; Doyle, 2008). Individuals who experienced child abuse or neglect (DeGue & Spatz-Widom, 2009; Mersky & Janczewski, 2013; Mersky & Topitzes, 2010) and individuals who were placed in foster care are two to three times more likely to have adult criminal involvement as compared to those who remained in their homes following a child abuse or neglect investigation

(Doyle, 2008). Placement in non-individualized foster homes (e.g. institutions or group homes) additionally increased the risk for arrest in adulthood (DeGue & Spatz-Widom, 2009).

Children who have experienced family separation (i.e. divorce, separation, or death) near their abuse or neglect incident were almost twice as likely to have been arrested as adults if removed from the home as compared to individuals who remained in the home (J. McMahon & Clay-Warner, 2002). In addition, placement instability has been shown to be a significant contributor to criminal involvement in adulthood (Widom 1991; DeGue and Spatz-Widom 2009). Without a consistent, significant, and positive caregiver children often develop attachment issues that can carry with them throughout their lives (Schwartz, Ortega, Guo, & Fishman, 1994; Unrau, Seita, & Putney, 2008) and lead to low self-esteem (Unrau, Seita, & Putney, 2008) which is a predictor of criminal involvement in young adulthood (Eitle, Taylor, & Pih, 2010). Older age of first placement has also been shown to increase the incidence of adult criminal involvement (DeGue & Spatz-Widom, 2009; Widom, 1991).

The juvenile justice system and the foster care system both serve children who have histories of abuse or neglect, mental health issues, trauma, and instability. Many foster youth have juvenile arrests prior to placement and/or after being placed (Ryan, 2012). The children who are served by both the juvenile justice and the foster care systems are referred to as "crossover youth" (Krinsky, 2010), and they are significantly more likely to be arrested as adults than those who only had contact with one system (DeGue & Spatz-Widom, 2009; Gilman, Hill, & Hawkins, 2015; Shook et al., 2013).

Youth in the child welfare system experience high rates of mental health issues (Burns et al., 2004) including depressive symptoms and low life satisfaction in early adulthood (Mersky & Topitzes, 2010). Unfortunately, these youth receive insufficient mental health services (Burns et al., 2004). Those placed in out-of-home care with mental health service involvement were more likely to spend time in a county jail as adults (Shook et al., 2013).

Educational deficits also play a role. Research consistently has found that former foster youth struggle with academics throughout their lives, are less likely to obtain a high school degree, and are even less likely to obtain a higher education (Pecora et al., 2005; Smithgall, Gladden, Howard, George, & Courtney, 2004). Low rates of educational attainment have been linked to an increased risk for adult incarceration (Lochner & Moretti, 2002) while high school completion can reduce arrests in adulthood (Topitzes, Mersky, & Reynolds, 2011).

Youth Who Aged Out of Care

In 2013, 10 percent of youth in out-of-home care were emancipated from the foster care system (Children's Bureau, 2014a). These youth are even more likely to be involved in crime than youth who spent some amount of time in care but did not age out, with almost half of females and nearly three fourths of males having an adult arrest (Courtney et al., 2011; Reilly, 2003). Similar to individuals who spent some time in care, placement instability, older age of first placement, juvenile justice involvement, lower educational attainment, and being male increases criminal justice involvement, and youth who age out of care experience many of these factors at a higher rate than those who ever spent time in care (Culhane et al., 2011; Cusick et al., 2011; Lee et al., 2014; McMahon & Fields, 2015; Pecora et al., 2005; Reilly, 2003; Shook et al., 2013).

Policy Analysis

The Fostering Connections to Success and Increasing Adoptions Act of 2008, which, in part, aims to deal with the negative outcomes outlined above, was signed into law October 7, 2008 (P. L. 110-351). It amended Title IV of the Social Security Act to provide children with greater opportunities for success and care. The major goals of this act were to improve the outcomes for older youth in foster care, connect children to relative caregivers and support kinship families, keep siblings together, promote more adoptions of older and disabled youth, and support education permanency and transparency (Shelleby, 2008).

Adoption

The changes to the adoption process and benefits in this act sought to increase the number of children adopted out of foster care. Federal adoption assistance payments were de-linked from a child's birth family's eligibility for welfare services, meaning that all special needs children adopted out of foster care who meet specific Title IV-E requirements are eligible for adoption assistance payments, rather than only those who qualify under their birth family's eligibility as previously. These new provisions provide an incentive for families to adopt this very vulnerable population of children in the foster care system (Fostering Connections, 2013). However, it is important to consider if prioritizing removal of these children, getting them adopted, and subsequently providing funds for such adoptions is in the long-term best interest of the children and the state. It may be possible for certain children to remain in their original homes if provided adequate resources. These children may fare similarly, if not better, by remaining in the home compared to being

placed in foster care and experiencing the traumas associated with being removed from their family. Special needs children are often in care for longer periods of time and are likely to experience placement instability which is linked to criminal justice involvement (Casey Family Programs, 2010; Children's Bureau, 2011, 2014a; Pecora et al., 2005). Therefore, these children could potentially have a higher risk for criminality as adults and, thus, it might be more productive for policy to focus on family preservation.

Education

The Fostering Connections Act requires that plans be made to ensure that children maintain stability in their school enrollment. Because it has been found that children placed in out-of-home care have more school transfers and struggle academically compared to their peers, and because inadequate education is linked to criminal justice involvement, protecting a child's education is important in reducing later criminality (Lochner & Moretti, 2002; Munson & Freundlich, 2008; Pecora et al., 2005; Smithgall et al., 2004). Although this portion of the Fostering Connections Act does make positive changes, there is still more to be done to ensure successful educational attainment for these children as many are involved in special education systems and struggle academically (Munson & Freundlich, 2008; Smithgall et al., 2004). These academic issues require special services and not simply stable enrollment.

Health Care/Mental Health

The Fostering Connections Act also requires that plans for the specific health care needs of each child are developed, which includes health screenings, follow up, and monitoring of physical and mental health (Fostering Connections, 2013). Given the link between mental health problems and a higher incidence of crime, this is a significant provision (Burns et al., 2004; Krinsky, 2010; Shook et al., 2013). However, as of February 2013 many states still have not created comprehensive plans to address these new requirements, and if a plan has been created it is often missing key components (Fostering Connections, 2013). Also, many children are still not receiving the health services to which they are entitled to (Levinson, 2015).

Kinship

Children placed in kin (relative) homes have been found to have fewer emotional and behavioral problems and placement transitions (Annie E. Casey Foundation, 2012; Koh, Rolock, Cross, & Eblen-Manning, 2014). One study suggests that kinship placements might possibly lessen later criminal

justice involvement (although the findings are inconclusive) (DeGue & Spatz-Widom, 2009). Children in kinship placements typically have had relationships with their kin caregivers prior to placement and experience higher rates of placement stability than those in non kin foster care (Annie E. Casey Foundation, 2012). Having a consistent positive relationship to a caregiver and experiencing placement stability have both been shown to reduce adult criminal involvement (DeGue & Spatz-Widom, 2009; Johnson, Giordano, Manning, & Longmore, 2011; Kapp, 2000). Those in kinship care experience greater school stability, which may improve educational attainment, and subsequently reduce crime.

The Fostering Connections Act places a priority on extending services to kinship families including increasing their access to benefits. Foster care non-safety licensing standards (e.g. number of bedrooms, home standards) have become more flexible, allowing for more kinship families to become licensed, which increases access to foster care payments (Annie E. Casey Foundation, 2012; Fostering Connections, 2013). In addition, states now have the option to use funding to extend guardianship assistance payments to kin who obtain guardianship of a child (Fostering Connections, 2013). Despite these improvements, kinship guardianship payments are only available to licensed kinship households where the child has resided for six consecutive months or more and in situations in which the child cannot return to the home of origin or be adopted. These requirements leave out the portion of kinship placements who want to obtain guardianship of the child in situations where the prospect of the child returning home or being adopted has not been eliminated (Fostering Connections, 2013). Despite this policy effort, it still remains difficult for these families to obtain licensure.

Kinship placements are also encouraged through this policy by requiring child welfare agencies to notify all adult relatives of a child's entry into care. The law also requires that reasonable efforts are made for siblings to be placed together, and, if a child is eligible for Title IV-E benefits, their sibling/s automatically become eligible if placed together (Fostering Connections, 2013). However, many states have noted challenges and barriers to following through with most of these provisions (United States Government Accountability Office, 2014).

Older Youth

The Fostering Connections Act significantly increases the availability of services for those who age out of care. Under this Act, child welfare agencies are required to ensure that a youth-led transition plan is created with the assistance of their caseworker 90 days prior to the date they will age out of

care. This is a positive provision as it requires youth to plan for their future and ensures that child welfare agencies prepare youth for independence. Youth who are actively involved in the development of a transition plan are more likely to follow through with such plan and experience positive outcomes (Wylie, 2014).

The Fostering Connections Act allows states to extend Title IV-E reimbursable guardianship, adoption, and foster care assistance payments to youth beyond age 18 and up to age 21, provided that the youth is involved in education, job training, or work activities (Fostering Connections, 2013). However, despite support from foster families and the child welfare system, many young adults in foster care still struggle to meet these eligibility requirements (Courtney et al., 2011). Thus, these eligibility terms may funnel services to those who are already most likely to succeed while further limiting resources for the most vulnerable population of young adults (Stott, 2013). As of February 2015, only 22 states and the District of Columbia had extended foster care benefits beyond age 18 (National Conference of State Legislators, 2015). Of the 22 states, 17 of them allow children to exit and reenter care after they turn age 18. This provision recognizes the developmental process of youth and allows them to be autonomous in their decision making but does not sever the possibility for future assistance (Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001).

This Act also extends independent living services to youth who enter kinship guardianship or are adopted on or after they turn 16 (Fostering Connections, 2013). These services include, but are not limited to, assistance with employment, housing, financial management, emotional support, education. These services also support an Educational and Training Vouchers Program (ETV) which allots up to \$5,000 per year to youth for postsecondary education and training (Children's Bureau, 2012). As of May 2014, most states have extended these services (United States Government Accountability Office, 2014).

Courtney (2009) finds that although this extension is a step in the right direction, the policy leaves out several vulnerable populations who are also likely in need of transition services: youth who exit care at or after age 16 and return to their family of origin, and youth who run away from out-of-home care. When children are returned to their family of origin, they are no longer become eligible for independent living services. However, the families who come into contact with the child welfare system might be unable to provide adequate support to their returning children (Courtney et al., 2001; McGuinness & Schneider, 2007). Although research does not specifically analyze youth who return to their family, Shook et al. (2013) found that ado-

lescents who spend time in care but do not age out have similar if not higher rates of justice system involvement than those who officially age out of care, possibly due to increased services for the youth who aged out in this study. Youth who run away from out-of-home care before they reach the age of majority are also left out of those eligible for these services. These youth may be especially likely to be involved in the criminal justice system (Shook et al., 2013). It is possible that by expanding eligibility to more populations these youths would experience reduced criminal involvement.

Another population that can be left out of eligibility for services are individuals who moved from the foster care system to juvenile justice system and turned 18 while in detention. The language within the Fostering Connections Act leaves these youth at risk of losing the benefits that they would have received if they had remained in foster care until they turned 18. The transition back to foster care from juvenile justice can be difficult to facilitate because of the need for contact between systems, and, depending on the language in state laws, it may or may not be possible. These crossover youths may not have a stable environment to return to or they may not be in contact with trusted adults. Without assistance, many may find themselves back in the justice system, since crossover youth are twice as likely to recidivate as compared to their peers who were only involved in the justice system (Wylie, 2014). Given a strong relationship between foster care, juvenile justice, and adult criminal activity (Gilman et al., 2015; Ryan, 2012; Shook et al., 2013), those who are involved in the justice system until they turn age 18 should be included in those eligible for services.

When foster care is extended to youth past age 18 these individuals are more likely to be working towards an education and are significantly less likely to be perpetrators of crime (Krinsky, 2010). Extended foster care support during the first year after turning 18 is strongly associated with lower arrest rates (Lee et al., 2014), and those who received independent living services were less likely to be in trouble with the law as adults (Reilly, 2003).

Future Policy and Practice Recommendations

The existing literature reveals the consistent barriers that former foster youth and crossover youth face as they transition to adulthood. My analysis of current policy shows that the Fostering Connections Act takes some concrete steps towards better serving this particularly vulnerable population. However, it also reveals that several further steps are needed.

Recommendations in relation to the Fostering Connections Act

- Address the educational needs of children in foster care and respond

with appropriate methods to promote improved educational outcomes.

- Extend GAP to kinship guardianship placements where children have the possibility of returning to the home of origin or being adopted.
- Continue to find ways to limit barriers to kinship placement licensure standards.
- Extend eligibility for independent living services and ETVs to youth who run away from care and those who return to their families after the age of 16.
- Ensure individual health plans are implemented and children's health needs are being met in appropriate time frames.
- Create a plan for cross-system collaboration to ensure that youth in foster care who cross to the juvenile justice system remain in contact with child welfare services, receive independent living services, ETVs, and can return to foster care placement upon their release if they are under their state's age limit.
- Provide post emancipation follow up to transitioning youth.

Recommendations for the Child Welfare System

- Continue to place a high priority on permanency in the home of origin.
- Make placement stability paramount for children who must be removed from the home.
- Assess all relevant family factors and histories when reviewing child abuse and neglect reports to avoid unnecessary removals.
- Create age sensitive provisions within future policy.

Conclusion

Children involved in the foster care system are a very vulnerable population with complex histories. Many have moved between placements, changed schools, dealt with educational difficulties and mental health symptoms, and some spend years without a permanent family. The current body of research, although small, points to various factors contributing to adult crime among former foster care youth: placement instability, age of placement, cross-system involvement, family factors, mental and behavioral factors, and others.

More research is needed about the correlation between foster care involvement and adult crime in order to draw comprehensive conclusions on how the foster care system (and other factors) play a role in the adult criminal involvement of youth who have spent time in foster care. Research

should focus on not only those who age out of care, but also those who have ever spent time in foster care. Although considerable efforts have been made in improving policies and practices, previous research finds that these children and adults are still struggling. Not only do policymakers need to further address the immediate safety and care of children, they need to evaluate the root causes of why child abuse and neglect is occurring. Many of these families struggle with several other problems that lead to such occurrences. Creating policies that promote strong, stable, and healthy families should be paramount in order for the long-term future of children to remain prosperous.

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Allies and the LGBTQ+ Community

Lucas Feldkamp¹

Senior, Applied Social Sciences

Advisor: Thomas Pearson

Abstract

This research looks into what is to be an ally to the Lesbian, Gay, Bisexual, Transgender, Queer+ (LGBTQ+) community at the University of Wisconsin-Stout (UW-Stout). It will provide insight into what an ally is and how individuals can work to become an ally to the LGBTQ+ community. At UW-Stout, there exists many strong organizations focused on allies and the LGBTQ+ community. This research delves into what the LGBTQ+ community expects of the allies of these organizations. Qualitative data was collected from a focus group held at the Qube, which is the LGBTQ+ resource center at UW-Stout. These participants were voluntary attendees recruited through public advertising. They provided their experiences of when they felt supported in their identities and what they believe allies are. In its findings, this research will show that the status of an ally to the LGBTQ+ community is something that is given to non-community members by the community through their efforts of respecting queer spaces, acceptance and normalization, education and self-sufficiency, and active engagement in social issues. This paper further outlines how individuals can take on this role and become an ally to the LGBTQ+ community.

Keywords: ally, LGBTQ+, community, Qube

Introduction

UW-Stout is a diverse campus that supports the many identities that its students represent. In recognizing different identities students have, the campus provides specific resources to students who identify within the LGBTQ+ community, such as the LGBTQ program coordinated by Julie Miller, the Qube (LGBTQ+ student resource center), and the Gender and Sexuality Alliance (GSA) (student run organization). While these resources provide an opportunity for members to express themselves and influence the community, at times they generate conflict between the community and non-community members. This may even occur between the community and those who work to be allies of the community. This research provides insight into what is expected of allies by analyzing stories of community members through a voluntary focus group. One of the key features of being an ally was found to be taking on the role of an ally by respecting queer spaces, accep-

tance and normalization, education and self-sufficiency, and active engagement in social issues. This will help those looking to be an ally have a greater understanding of why these attributes are being expected and will help have the skills to allow for a multicultural society.

Literature Review

Much of the literature in relation to the LGBTQ+ community seems to be focused on an awareness of the individual's identity as a member within the community and specifically the impacts this identity has on relationships with parents (Savin-Williams, Dubé, 1998. D' Augelli, Grossman, & Starks, 2005). These studies pulled out the positive and negative impacts that such awareness had on the community members. Studies also focused on the awareness in social institutions such as a Catholic college and how to maintain and influence a community at large (Love, 1998). These studies provide knowledge of how awareness and conflict are important in creating a better environment for LGBTQ+ community members.

Beyond the awareness of the community, there is importance in how society is perceiving and integrating such individuals. Generally society appears to perpetuate ideas of heteronormativity (Solebello, Elliott, 2011). This is the belief that all individuals should be assumed heterosexual unless explicitly identified otherwise. This creates an environment that forces individuals to take on an acceptable role in society and molds their every day interactions in manners beyond their control (Rich, 1980). Even after being represented as other, society appears to be influenced by a novelty effect that makes examples of non-heterosexuality appear to stand out more. This occurs even when examples are used as frequently or less frequently than heterosexual examples (Ripley, Anderson, McCormack, Rockett, 2012). These challenges to integrating and representing the community to society at large provide allies a basis of what they must surmount.

Other research shows the benefits individuals receive for being an ally to the LGBTQ+ community (Rostosky, Black, Riggle, & Rosenkrantz, 2015). This gives incentive to non-community members to actively seek out opportunities to be an ally as they can in turn document value with such actions. This in turn may help counter negative mental health differences as seen in community members (Ueno, 2010). Finally, research into what an ally training program is helps provide clarity to those seeking out to be an ally in their community (Woodford, Kolb, Durocher-Radeka, & Javier, 2014). These sources show benefits to those looking to be an ally and can clarify the avenues of education an ally can take.

The previous literature helps show the importance of awareness of the community, how it is being perceived and integrated, and benefits to those interacting with and those within the community. It is lacking specifically what the community is looking for in those who support it. While un-

derstanding how and what is ongoing is important to find points of change, directly researching what the community is looking for will create a strong starting point for positively impacting it. This research will work to fill this lack of representation of community expectations and provide those looking to be an ally of the community such a starting point. It will also give a platform for the stories within the community of when they have felt supported by allies and in turn can lead to the construction of better ally programs, social efforts, and peer integration.

Theoretical Overview

This paper will utilize role theory and ideas of solidarity and social integration to understand the data collected. Role theory is how individuals who occupy particular social positions are expected to behave, and how they expect others to behave (Ritzer, 2007). For the purpose of this research, it is the idea of how an individual is taking on the role of an LGBTQ+ ally. This is the idea that to fulfill and be identified as an ally, individuals must perform certain actions such as taking on education, support roles, or activism for the LGBTQ+ community. Solidarity is the perceived or realized organization of individuals for group survival, interests, or purposes. This was further expanded by Emile Durkheim into the ideas of two types of solidarity, mechanical and organic. Mechanical solidarity is the idea of individuals of same interests such as a small community, religious group, or, as in this research, the LGBTQ+ community at UW-Stout. Organic solidarity is the idea of many individuals interacting, which can be seen more in a capitalist society where individuals participate outside of their mechanical groups. This creates exposure to many different ideas and perceptions about topics such as in this research when allies and the LGBTQ+ community interact. In our society we function heavily within organic solidarity, and this often creates conflict as different ideas and perceptions lead to different ideals of how society should function. The final idea is that of social integration. It is the interrelation of elements in a social system, traditionally actors or members of a system. This was expanded to the realm of an individual's actions or communications. This helps to understand the ultimate goal of the community to be a connected part of the social system around it. (Ritzer, 2007) More specific research has expanded into queer spaces and the necessity of their own areas of mechanical solidarity. Heteronormativity, as mentioned above, enforces scripts of how a person should act in accordance to sexual orientation. When distinguished as outside of these scripts, members of the LGBTQ+ community are oppressed in society as a minority group. This oppression forces them to act in ways to survive in society and limits their own understanding of their identity as they cannot fully work to collaborate with heterosexual individuals (Rich, 1980).

Methods

This research was conducted through qualitative research methods. The data was recorded from a research focus group conducted on campus in the Qube at UW-Stout. This focus group was coordinated with the Qube staff and the researcher. This was originally planned as a brown bag discussion format where participants would voluntarily attend the Qube to discuss a topic after a basic outline of information was provided. With such a format, participants would be able to provide their insight into what an ally is to the community, and it would be made up of participants who actively attend such events that represent actively involved community members. Also with the Qube as the center of community activity on campus, it would be a strong base of the active community's view.

The first scheduled group was canceled due to concerns with closing the Qube for the group. The group was then rescheduled and advertised as a research focus group for an hour time period after the Qube's general operating hours were over. The advertising consisted of a flyer that was posted within and nearby the Qube that outlined what the research project was, the intended participant pool of LGBTQ+ identifying individuals, and the researcher's contact information. The focus group was also announced at the general meeting of the UW-Stout GSA and was posted on the Qube's social media Facebook page the week of the group. These advertisements were used to reach active members of the community to provide their insight about allies. The group's goal to represent the LGBTQ+ identifying members and the commitment involved was made clear.

The focus group was conducted over an hour long time period. It was held in the back lounge of the Qube which provided a secluded environment that was traditionally used for such discussions. The first half of the group consisted of outlining the research, all related materials, and obtaining consent from the participants. Then the participants were asked about their demographics and involvement within the community at UW-Stout. These were recorded through jotted notes and were used to build rapport amongst the participants. All the data recorded was done using pseudonyms chosen by the participants. The second half of the focus group was audio recorded and focused on the questions relating to how the participants received support in relation to their identities within the community. Notes were also taken during this time to highlight specific emphasis points along with timestamps and speaker's names to provide clarity during transcription of the recording. Throughout the group, participants were fully aware that data collection was occurring and clearly notified when audio recording was in use. The questions during this time provided open ended opportunities for the participants to share their experiences. Following the focus group, the recording was then transcribed by the researcher to be coded for themes and specific quotes.

This process collected a strong dialogue amongst participants, but

was limited in that only gender non-conforming and female self-identified participants were present. One advantage to this process was, as a member of the community at UW-Stout, the researcher had previous knowledge and explanations of the identities given along with other terminology used within the community. This allowed the participants to focus more on sharing their experiences without the needed time or interruption of providing baseline education to understand their dialogue. Also, with the size of the community at UW-Stout, the researcher and participants had previously known of each other. This previously established rapport helped the participants feel more comfortable with the group and allowed them the safety to share their experiences. This did not seem to affect the research as the roles of the project were clearly defined at the start of the focus group. This may have allowed for deeper inspection into topics as the researcher could pick up on ambiguous terminology that is used within the LGBTQ+ community and varies by definition of each member.

Results

The focus group contained four main qualities of how those who want to be allies of the LGBTQ+ community should act. They include (1) the idea of respecting queer spaces, (2) acceptance, and normalization of the community, (3) education and self-sufficiency on the part of those looking to be an ally, and (4) the practice of active engagement in social issues around the community. These qualities provide a baseline for the expectations of how to take on the role of being an ally. This research also shows the emphasis of taking on the role of being an ally. Based on the data collected in this research, one cannot claim or self-identify as an ally without taking on the expectations of such a role and showing them to the community. Following this acceptance of the role and action associated with it, the community should then identify these individuals as allies.

Respecting Queer Spaces

The idea of a space that is one's own embodies the mechanical solidarity that Durkheim discusses. This area provides people of similar experiences and ideas the space to share amongst themselves for safety and reassurance. As a member of the community, individuals have to worry about marginalization and oppression within society at large, but within spaces designated as their own, they have the safety to process their experiences and work to deal with their own identities. This can be seen through Bernadette's account of when they felt most supported regarding their gender expression during the Midwest Bisexual, Lesbian, Gay, Transgender, Ally College Conference (MBLGTACC), "...when I was at MBLGTACC....it was so good.... felt super supported and super validated by that, just seeing that representation...." Janice shared similar sentiments of safety, "I feel like I can really let my guard down when I'm surrounded by other queer people."

This, in turn can be understood by those looking to be an ally in the sense of respecting such spaces. In order to be an ally, non-community members must recognize that "it's not about you," (Janice) as an ally, but it's about the community they are looking to support and help in such spaces. Rich elaborates on this topic, arguing that individuals with these identities need autonomous spaces, rather than extensions of existing social institutions, in order to fully develop their own existence (Rich, 1980). With the oppression of a heteronormative society, members of the LGBTQ+ community must either assimilate for safety or distinguish themselves as others for authenticity. Without the safe spaces, their ability to create an existence as defined by themselves is limited. Astrid shares the severity to which members of the LGBTQ+ community feels oppression, "It like, diminishes the real severity of coming out. People literally could get murdered, there are people who have situations like that." Within these safe spaces, LGBTQ+ community members can share and process their experiences into an understanding of what they feel in their community and how they want to make up their existence from these areas.

Acceptance and Normalization

Every day individuals who identify outside the community have validation in their existence through media, education, and other information sources. As Jankins highlights, "and everybody already assumes that you're straight. Heteronormativity, suuucks." As already highlighted in the literature, the idea that everyone is straight until proven otherwise is draining on the community. Individuals in the community want to be recognized as who they are. As provided in theory, they want to be integrated into society. This requires the social acceptance that there are sexual identities beyond heterosexuality. After this acceptance occurs, there was an overwhelming idea of normalizing non-heterosexual identities and relationships.

"Yeah, like when I see an ally that's like, 'I'm here to support you.' I'm like 'Oh Jesus Christ, here we go, like what are we doing,' but then like when it's people who are just like there for you and you're there for them and it's just cohesion and they just happen to be straight and it's like 'Oh okay, whatever.'"

—Bernadette

The above quote sums up much of this idea of normalization and acceptance. The community isn't looking for special treatment or the idea of their sexuality to be exotic to non-community members. They are looking to be treated as their heterosexual peers with the acceptance that their sexuality or gender expression is different. In such, those who are looking to be allies should recognize where they are acting in ways to accept and validate the community and avoid behaviors that create this sense of novelty or exoticism. Jankins

explains how this looks, "I have classmates that don't make it a big deal, they react to me talking about my girlfriend as if I were talking about a boyfriend, I think that makes a good ally, you know like oh that's your life and let me just tell you about mine and I'm as equally as respective of that. It doesn't take much."

Education and Self-Sufficiency

As members of a non-traditional identity, those within the community experience much of their understanding of their identities through their own education and research in sources such as other community members, libraries, the internet, and LGBTQ+ resource spaces. As a result, these individuals have already put much effort into understanding their own experiences and may have traumatic experiences associated with this learning and understanding. As those who are looking to become allies begin, they may find it easy to simply ask community members to explain and answer every question they have, but this is taxing on the community members, especially when these questions may be taken as a hegemonic representation of a large community. As Janice states, "We're not all encyclopedias and not one queer person can represent every single queer person, like especially even at Stout." Astrid also shares these sentiments in multiple ways, "We're all, we all don't need to be teachers, we can't all be teachers, not everyone has the ability to be a teacher." These examples highlight the need for those looking to be allies to search for information in the proper places. This also extends beyond queer spaces into other areas of oppression such as ability, race, and socioeconomic status. Members of the community may be a great source for information about local areas, such as being directed to the Qube or the LGBTQ program coordinator at UW-Stout, but in broader contexts accessing public sources on their own provides the community members with validation in their experiences when being asked for them, rather than being used for a quick information source. As Janice explains, "like that they're not just in it because they know you, that they're in it because you know they care." Bernadette shows appreciation for even the simplest steps of self-sufficiency, "and thank you for Googling it and not asking me." These steps also lead into the next idea of active engagement.

Active Engagement

The final and highly defining quality presented about being an ally was the level of engagement and action taken by an individual. This idea about allies garnered the most passionate responses from the participants. They emphasized that an ally doesn't just passively coexist by the community, but that an ally takes action to help the community. "I want you to advocate for our rights and then not expect anything in return" (Janice). The difference between the portion of the population who is indifferent about the

community and those who are allies are the actions they take in working to end the oppression and marginalization of the community in society. Another way of explaining this is the idea that the LGBTQ+ community is an umbrella term and all those identities within it are being hit by the rain of oppression. “[A]llies aren’t necessarily in the umbrella, but they are helping hold it up. The rain of oppression, yeah.” (Janice) This is the way of distinguishing those who are indifferent to the community won’t be affected by the rain of oppression, but also aren’t causing it, while those who are allies will work through the rain and try to help the community out.

Conclusion

This research helps to further the understanding of what an ally is as identified by the LGBTQ+ community at UW-Stout. Specifically how being an ally is a role within society and relating to the LGBTQ+ community. In taking on this role there are assumed expectations and responsibilities to the community, specifically respecting queer spaces, acceptance and normalization, self-sufficient education, and active engagement. On campus at UW-Stout, individuals who are looking to become allies can take this role by educating themselves through on campus resources such as the Qube, GSA, and courses focused around gender and sexuality. They can then use this knowledge to be more inclusive and accepting to the community and also take the knowledge to try and create social change in their own ways to advocate for and support the community. Also, they can respect the exclusive spaces on campus that provide safety for the community as it grows to become integrated into society. While this research helps draw in views from what the community is expecting of allies, it doesn't provide insight into what those who are working to be allies are providing. This one-sided view needs a counter view of what allies believe they are doing to help the community to see where expectations and actions are lining up and to find what is disconnected. Further research into what is being provided will help create a more thorough understanding of the LGBTQ+ community and its integration into society.

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Assessing Diversity Competence in Resident Advisors

Morgan Wolf¹

Senior, Psychology

Advisor: Sarah Wood, PhD

Abstract

Common discussions about diversity often revolve around age, gender identity, sexual orientation, race, ethnicity and economic class, but there are more areas of diversity not commonly associated with the word: partner status, education level, language, religion, ability, and geographic location. This research sought to assess the level of competency Residential Advisors feel with residents from common diverse groups such as LGBTQ, ethnicity, gender, age, and religion. It was hypothesized that Residential Advisors feel the most competent with residents whose diversity they have come into contact with before, possibly through a roommate, friend, family member, or environmental setting.

Participants included in this research were 87 Residential Advisors on the University of Wisconsin-Stout campus for the 2015 spring semester. Two surveys were sent out to all participants. The first was a Diversity Awareness Profile, found in the Mental Measurements Yearbook. This assessment assessed different ways an individual can discriminate against, judge, or isolate others. The second survey inquired if participants feel competent with their diverse residents now knowing their awareness score. The results of this research show that diversity training for resident advisors is needed.

Keywords: diversity, resident advisors, competence

Assessing Diversity in Resident Advisors

Understanding diversity is encouraged on university campuses around the world (Bowman, 2012). It promotes self-awareness, creativity and curiosity, increases knowledge and worldliness, and gives students multiple perspectives on common issues and stereotypes in the world (Bergerson & Huftalin, 2011). Research has shown that students are becoming more accepting of diverse people and encouraging their involvement on campus (Park, 2014). However, very little research has been performed involving resident advisors who oversee undergraduate college students to determine whether they feel they can connect with their diverse residents. College is a large stepping stone into adult life and the workplace, and young adults experience many new things

during their four years or more years in college. This is a time of self-discovery. In this transition, leaders and mentors have a powerful effect on how opinions and values are shaped. The Resident Advisor (RA) for the dormitory is usually the first person a new student meets, and they maintain a constant relationship throughout the first year in college. As diversity is increasing in colleges, Resident Advisors need to be able to reach out to all students and be aware of any challenges they or other residents might face with diversity. It is important for Resident Advisors to make a good impression so they can connect with those different from themselves.

Research on these mentors of young adults can aid in diversity training and seminars. The purpose of this study was to assess how competent Resident Advisors feel with diverse residents on matters such as sexual orientation, ethnicity, gender, age, and religion. College housing staff can use this research to find areas of improvement when training Resident Advisors. Due to the influence leaders and mentors possess, assessing whether they feel proficient with diversity is essential for growth.

Diversity Awareness

Historically in research, the term diversity primarily referenced race, ethnicity, culture, and values (Pascarella, Edison, Nora, Hagedorn & Terenzino, 1996). In previous studies of human diversity, the most viewed concept was skin color and the relationship between those of different races. However, the term diversity applies to more than just skin color; diversity is the difference among people. For the purposes of this research, diversity represents sexual orientation, gender, race, ethnicity, age, religion, and physical ability. It embodies the structural aspects that divide large groups of people into major categories. Diversity awareness is pertinent in the understanding and acceptance of others. Through awareness, individuals learn to value and to validate those who are different from themselves (Chavez, Guido-DiBrito, & Mallory, 2003).

While diversity awareness may be a simple concept, acceptance and appropriate relatability with members of a diverse group is more challenging. When interacting with a broad unit of diverse individuals, it is important to feel competent in these interactions. Competence is having the knowledge or skill to successfully accomplish something; it not only affects having the capability for success, but also affects self-confidence. If an individual is self-confident that they have the knowledge for success, chances are they are more competent in that field than someone who does not feel they possess those skills (Pascarella, Edison, Nora, Hagedorn & Terenzino, 1996). In professional settings, the ability to positively interact with members of diverse groups is essential.

Workplace

Research has shown that experience with racial and ethnic diversity in an individual's community can largely affect how diversity is perceived in the workplace environment. Exploration of this subject focuses on "community diversity climate" (Ragins, Gonzalez, Ehrhardt & Singh, 2012) which is defined as "an individual's perception of the importance of value his or her community places on racial and ethnic diversity, and the degree to which he or she experiences the community as an environment characterized by inclusion and acceptance of differences" (Ragins, Gonzalez, Ehrhardt & Singh, 2012, p.757). There is a significant correlation among a community diversity climate, work stability and stress: those who live in an accepting and tolerant community have higher levels of work stability and lower levels of work stress than those in intolerant communities (Ragins, Gonzalez, Ehrhardt & Singh, 2012).

Research has shown that Caucasian individuals living with a higher proportion of people of color are more likely to desire to leave such a community compared to those living in a community of the same race (Ragins, Gonzalez, Ehrhardt & Singh, 2012). However, for individuals of color, their desire to leave the community is based on their perceptions in regards to the racial climate, such as violence, issues with race, and discrimination. In regards to race, both white people and people of color report strong intentions to leave harmful diverse communities; however, it is significantly stronger for people of color than for whites (Ragins, Gonzalez, Ehrhardt & Singh, 2012). The spillover of the community's attitude towards diversity can affect comfortability within the community as well as within the workplace. Moving to a community of acceptance and tolerance gives a higher possibility of stability in the workplace as well as increasing an individual's own acceptance of the community (Ragins, Gonzalez, Ehrhardt & Singh, 2012).

University Friendship Groups and Clubs

Allport's (1954) contact theory suggests prejudice in an interaction is reduced when individuals have institutional support, cooperative interdependence, equal status contact, and common goals. It is also important for friendship to occur with a healthy interaction (Pettigrew, 1998). The effect of a friendship group is direct and remains significant in relationships with diverse populations outside the friendship group. The diversity of a student's friendship group before college is a positive predictor of their interracial interactions and friendships (Park, 2014). Exposure to diversity within friendship groups aids in understanding similarities and differences between diverse populations and in making proper judgements due to these cross-group friendships. Davis, Tropp, Aron, Pettigrew, and Wright (2011) define a cross-group friendship as an "ongoing meaningful relationship with a specific outgroups member or a member that was closer than that of a mere acquain-

tance (in which the relationship is based solely on familiarity)" (p.334). The benefits involved in a cross-groups friendship include higher levels of self-disclosure and positive outlooks on other members belonging to those groups (Park, 2014).

Most friendships are cross-group friendships, whether the groups are based on social class, religion, ethnicity, sexual orientation, gender, or race. An interracial friendship is the most common type of cross-friendship group, where it is racially and ethnically mixed (Antonio, 2001). Studies on interracial friendships have shown common occurrences with Caucasian, Black, Hispanic, and Asian students. Caucasian students are most likely to hold close interracial friendships and also have a different-race romantic partner. Black and Hispanic students display more homophily (a tendency in which there is higher contact between similar people than dissimilar). Asian students are less likely to have close interracial relationships, possibly due to the fact that they have the largest racial/ethnic minority group at most institutions, and therefore have a larger opportunity to choose same-race friends (Bowman, 2012). This research suggests different races have different patterns in choosing friendships and relationships.

Antonio (2001) found a strong relationship between friendship group diversity and interracial interaction outside that friendship group, which suggests interracial friendship groups motivate students to socialize across race and, consequently, across other diversity barriers. However, in most university organizations, research suggests students are more likely to spend time with same-race peers, especially in Greek life, ethnic student organizations, and religious student groups (Park, 2014). Greek life is of predominantly white orientation, while religious student groups often comprise of a specific race associated with that religion branch. The primary goal of ethnic student organizations is to bring together students of a specific ethnicity, so even when an organization has a multiethnic approach, such as the Black Student Union's efforts to welcome Latino students, a Latina student may feel unfit for the organization.

Other campus life interactions can affect judgements and prejudice between diverse groups. When students are randomly assigned or voluntarily choose a diverse roommate, prejudice decreases and acceptance and understanding increase (van Laar, Levin, Sinclair, & Sidanius, 2005). Whether voluntarily or involuntarily, the contact theory is put into play with exposure to diverse individuals, and students are exposed to similarities and differences of these diversities.

Personal Development

There are many societal factors involved in dealing with diversity, and each individual has a different ability and comfortability due to their experiences. Diversity can be described as experiencing the unexpected,

whether it is positive or negative. In these experiences, beliefs or judgements are challenged and can be changed. Research has shown positive diversity experiences that are meaningful lead to greater improved change as opposed to negative diversity experiences. These experiences most often take place outside of our conscious awareness (Bowman & Brandenberger, 2012). During college, students tend to lean toward greater openness to and tolerance of racial, ethnic, and political affairs as well as individual rights. In a study conducted over students' first year of college, it was found that women and nonwhite students had higher levels of openness to diversity than men and white students. Overall, this openness increased with age, living on campus, and participating in a racial or cultural awareness workshop. Key determinants on openness and tolerance are positively correlated with high levels of student involvement on campus and conversations on diverse topics in peer groups (Pasarella, Edison, Nora, Hagedorn & Terenzino, 1996). These traits of openness and tolerance can influence other members of groups and dialogue they are engaged in, and makes the student more receptive to learn more about diversity. This suggests students who promote understanding and choose diverse experiences and dialogue before their first year at college are more likely to seek out diverse interactions throughout their college career than students who do not have a pre-college diversity exploration (Chang, Astin & Kim, 2004).

A qualitative study by Bergerson and Huftalin (2011) found that in becoming more aware of their own identities, students have also become aware and accepting of the differences of others. Through self-reflection and knowledge of one's own identity, individuals become more understanding and open to dissimilarities. Personal interactions such as informal conversations, classes, and social events with members from diverse communities have been linked to increased openness. Increased self-awareness of an individual's own identity, challenges, and privileges also leads to a higher acceptance of others (Bergerson & Huftalin, 2011). Chavez, Guido-DiBrito, and Mallory (2003) developed a framework for understanding an individual's diversity development. Although each person is different in the way they develop with diversity, there seems to be a common outline. For any kind of diversity, no matter how big or small, individuals move through periods of awareness: unawareness, dual awareness, questioning and self-exploration, risk-taking or other exploration, and integration dimensions (Chavez, Guido-DiBrito, & Mallory, 2003). Chavez, et al (2003) defines unawareness as the lack of awareness of the "other"; this is when there are no feelings or acknowledgement that there is an "other". Dualistic awareness is the start of awareness for the "other"; however, it is an egocentric superior awareness. Questioning and self-exploration is a stage where an individual experiences feelings that make them question their own experiences, ideas, and meaningful contact, whether negative or positive. Risk-taking and other exploration is a period when an

individual confronts their own perceptions about the "other", and they may change their behavior and take risks in this exploration. Integration is the final stage of validating others and thus increases self-confidence and acceptance of others (Chavez, Guido-DiBrito, & Mallory, 2003).

This framework is used with every diverse concept and often an individual is in several different stages simultaneously for multiple notions of diversity. For example, one may have discovered a close friend to belong to the lesbian community and they are confronting their own perceptions of sexual orientation and learning more about the community, which places them in the risk-taking stage. At the same time, they may have no knowledge of the sexual orientation known as pansexuality, so they would be placed in the unaware stage of this framework until it is brought to the dualistic stage.

Resident Advisors

Previous research on diversity and leaders of the college community has concentrated on factors affecting Resident Advisors and promoting diversity and acceptance. Universities want to hire individuals that will spread understanding about diversity, specifically cultural diversity. The Resident Assistant Cultural Diversity questionnaire (RACD) was developed to understand how previous experience can affect a Resident Advisor's confidence in dealing with cultural diversity (Johnson, Kang, & Thompson, 2011). This assessment explores five components: need for cultural diversity training, confidence working with culturally diverse residents, belief in the existence of racism in residence halls, confidence in their ability to handle racial conflict, and belief in the power of the Resident Advisor position to bring about cultural understanding (Johnson, Kang, & Thompson, 2011). The component "need for cultural diversity training" assesses the level Resident Advisor's belief that specific training in addition to their previous experiences is needed for a better understanding of cultural diversity. The second component, "confidence in working with culturally diverse residents," evaluates the extent to which Resident Advisors believe that previous exposure and relationships with diverse cultures have prepared them for such interactions in the residence halls. The component "belief in the existence of racism in residence halls" explores whether Resident Advisors have witnessed negative racist attitudes and comments in residence halls. The fourth component, "confidence in their ability to handle racial conflict," reflects Resident Advisor's competence levels when handling conflict in the resident community due to racial issues and communication. The final component, "belief in the power of the RA position to bring about cultural understanding," assesses the level of certainty a Resident Advisor believes their superior position in the residential community can influence cultural understanding and acceptance (Johnson, Kang & Thompson, 2011). This five-factor model has been used at the close of Resident Advisors' employment to understand how effective diversity training was in the pre-ac-

ademic year as well as to analyze aspects to include in diversity training for the subsequent year.

MUDAS Questionnaire

To measure the progress of college students' view and understanding on diverse topics, Mosley-Howard, Witte, and Wang (2011) constructed the Miami University Diversity Awareness Scale (MUDAS). Similar to the RACD, the MUDAS assesses five constructs: value and appreciation, learning and knowledge, intercultural interaction, social justice, and discipline practice. Value and appreciation examines the perception that diversity is positive to quality of life. Learning and knowledge explores the understanding of their own culture and recognizing any privileges a student may have associated with social factors such as race, social class, and gender. Intercultural interaction pertains to a student's desire to share life experiences with their culture and their eagerness to learn about cultures outside their own through concepts such as friend groups or studying abroad. Social justice examines a student's value regarding diverse cultures, their promotion of diversity, and their tendency to speak up in culturally injustice situations. Finally, discipline practice explores the willingness to address cultural awareness in society and handle cultural-related conflicts with effective management skills (Mosley-Howard, Witte, & Wang, 2011). Through this study, researchers found significant differences with gender and ethnic groups. Female participants rated themselves higher than male participants in cultural awareness, and Latino/Hispanic students showed the highest results for all five factors, with Black students following (Mosley-Howard, Witte, & Wang, 2011). Assessing the difference in diversity awareness between the majority and minority groups of each diverse construct could aid in diversity training in academic and residential settings.

Gaps in Research

Research has shown that higher competence with diversity has benefits, and cultural understanding and acceptance is more prevalent in specific diverse groups. Life experiences before college may not encourage students to explore cultural awareness and understanding. Therefore, it is important that Resident Advisors feel confident that they can understand and relate to diverse individuals, as well as teach incoming students. As the workplace, neighborhoods, and institutions become more diverse, understanding and accepting differences becomes increasingly important. There is little research looking at training techniques or models used to train Resident Advisors on diversity competence. Assessing how competent these leaders are in their skills and abilities is imperative in understanding what additional training may be needed or if changes need to be made, as well as in assessing the positive effects diversity training had before becoming a Resident Advisor.

The purpose of this study was to assess the level of competency Resident Advisors exhibit with their diverse residents. It was hypothesized that Resident Advisors will feel the most competent with residents whose diverse identity they have come into contact with before, possibly through a roommate, friend, family member, or other environmental settings. It is also hypothesized that RAs who are more aware of cultural diversity will feel more competent with diverse residents.

Methods

Participants

87 undergraduate Resident Advisors in the University of Wisconsin-Stout residence halls were solicited for participation. Participation was open to all regardless of gender, age, religion, sexual orientation, or socio-economic status. Resident Advisors from both freshmen dormitories and upperclassmen dormitories were included. Nineteen responses were received, fifteen of which were completed. This provided a 17% usable response rate.

Materials

Researchers used a survey comprising of seven demographic and diversity questions, the Miami University Diversity Awareness Scale [MUDAS] (Mosley-Howard, Witte, & Wang, 2011), and 15 questions pertaining to relationships with residents and self-sought diversity experiences (see Appendix). The MUDAS questionnaire consists of 37 questions used to assess the RA's views and behaviors towards diverse others using a 5-point Likert scale from strongly agree to strongly disagree. The 15 relationship and diversity experience questions were established by researchers as valid measures of assessing the level of competency Resident Advisors feel with their diverse residents and their past experiences. Participants responded on a 7-point Likert scale from not at all like me to just like me with neutral as an option as well.

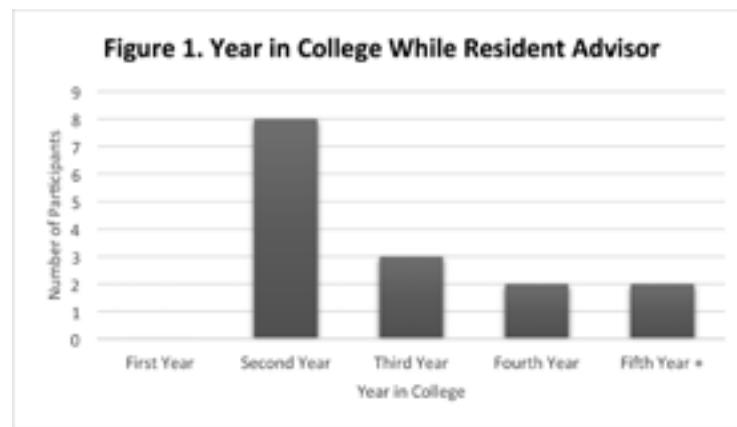
Procedure

After IRB approval, the survey was administered and distributed in summer 2015 via the Qualtrics online survey software to UW-Stout Resident Advisors in residence halls during the 2015 spring semester. Participants read an implied consent page prior beginning the survey. They first answered questions pertaining to their demographic and diversity information, and then proceeded to the MUDAS questionnaire, and finally finished the survey with questions about their diverse relationships and experiences. Participants were able to discontinue the survey at any point.

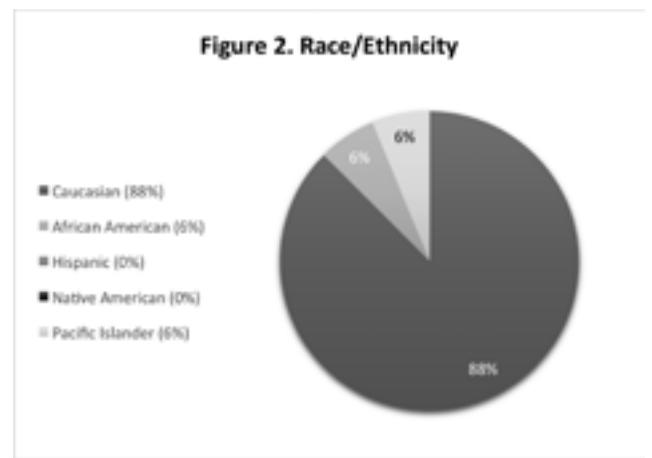
Results and Discussion

Initially, 19 participants started the survey but only 15 completed it. Therefore four surveys were not used in the analysis. The ratio of female

to male respondents was 3:2 with nine females and six males. All respondents identified as heterosexual and no participants reported disabilities. The undergraduate majors ranged across the spectrum, with no specific major reported more than others.

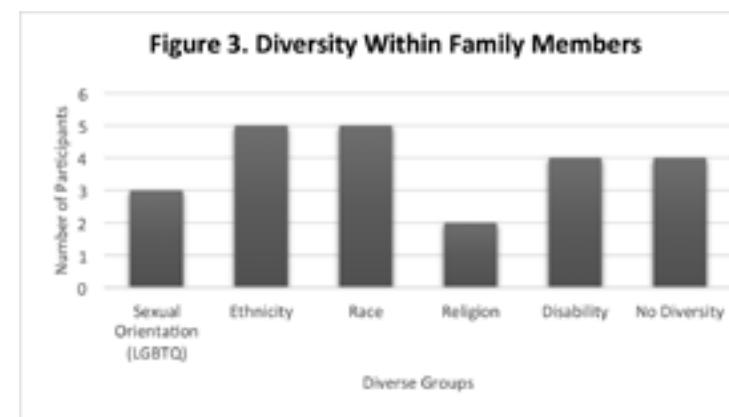


Eight out of 15 participants were second-year college students (sophomore status), three are third-years (junior), two are fourth-years (seniors), and two participants have been in college for five years or more. Participating Resident Advisors reported holding their position ranging from one semester to six semesters, the average being two to three semesters.

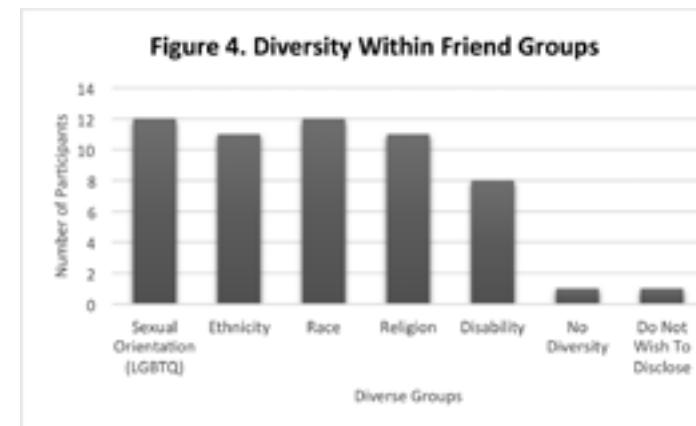


The majority of participants (93%) were of White/Caucasian descent, with one participant identifying as both White/Caucasian and Pacific Islander. One participant identified as African American. In relation to diversity in the participant's background, only two participants replied that they had grown up in a diverse city or town, and the other 13 reported that they did not come from a noticeably diverse community. Forty percent of participants responded to being involved in clubs and activities that revolved

around a diverse population from themselves; for example, a Caucasian American reported attending an International Students Club. Nine out of 15 participants were not involved in such organizations.



Four participants reported having no diversity in their family. The most common aspect of diversity found in families was race and ethnicity, with disabilities also common, while diversity in religion was the least common. Twenty-seven percent of participants reported no known diversity in their families.



Diversity is more common within friend groups than within the family. Eighty percent of participants have friends that identify as a different race or sexual orientation. Seventy-three percent of participants have friends belonging to a different ethnicity or religion. Participants with friends who identify with a disability were 53% of respondents. Only one respondent reported no diversity.

Table 1.

Questions 1-6 of Miami University Diversity Awareness Scale

	Mean	SD
I am aware of my own culture and ethnicity.	4.13	1.06
I am NOT comfortable talking about my culture and ethnicity.	1.67	0.82
I seek to learn about different cultures.	4.20	0.86
I seek opportunities to interact with people from different cultures.	4.00	0.85
I appreciate and welcome the challenges and opportunities that diversity brings.	4.20	0.68
I do NOT share my appreciation of diversity with my friends.	2.33	0.98

Note. SD = Standard Deviation

Rated on a Likert Scale from 1 (strongly disagree) to 5 (strongly agree)

The results from the MUDAS questionnaire show high diversity awareness and cultural appreciation, as well as a high sense of social justice and a strong willingness to promote diversity. On a scale of one to five with one being strongly disagree and five being strongly agree, participants averaged 4.40 on understanding their own privileges that come with their identity. High averages of 4.20 were for welcoming the challenges of diversity, demonstrating awareness of their own culture, appreciating cultural diversity, and wanting to learn about other cultures. These results suggest Resident Advisors value and appreciate cultural diversity and implementing this appreciation into society.

Discussion

This research showed that specific training workshops need to be implemented for Resident Advisors on college campuses. Most Resident Advisors at the University of Wisconsin-Stout are knowledgeable about groups similar to them but have limited knowledge on individuals from other diverse groups. Training workshops should be implemented not only for understanding culture, but also religion, sexual orientation, and age differences in students living in residence halls. Resident Advisors are more likely to feel comfortable and competent with residents whose diversity aspects they have experienced in their life through family, friends or other social circles.

A limitation in this study was self-report bias. Although this study relies heavily on how the individual feels, there can be an unconscious bias of responding in a socially acceptable way to avoid judgement. Other limitations of the study include a small sample size and only a 17% response rate. Due to conducting the survey over the summer months after the participant's employment, the small response rate can be a result of time management or unavailability. It is also possible that measuring diversity in families was not specific enough. It can be interpreted as the nuclear family of parents and children living in the same household or to the extended family. In this study, the MUDAS survey specifically assessed Resident Advisors' knowledge on diverse cultures. Future research should investigate Resident Advisors' feelings

and emotions towards diverse groups on campus. As this study is representative of competence, more specific questions towards emotions should have been implemented rather than assessing how aware Resident Advisors are of diversity.

This research can be used for diversity training in understanding what to work on for students, specifically in what areas can be improved and how to guide them through working with diverse residents and feeling confident and comfortable. This research could also be used to help in training workshops for high school students in hopes of increasing their knowledge on diverse cultures and involvement through having a dialogue about diversity. Teaching high school students diversity awareness, competence, and acceptance can aid those who do not advance to higher education, where most diversity awareness is taught and experienced. It broadens the scope for future research regarding what characteristics and background can aid in understanding and accepting diversity.

More research on this topic needs to be completed for the results of this study to be beneficial. Future research should explore personality traits that might aid an individual in diversity competence. A larger sample size is needed and research should also examine Resident Advisors from different universities and compare competence. Other research could include analyzing competence due to their academic year status and coinciding college experiences, i.e. second-year Resident Advisors versus fourth-year Resident Advisors. Future studies should specifically explore gender, age, involvement on campus, ethnicity, and race in relation to competency with residents.

Overall, this research illustrates that Resident Advisors feel more competent with diverse groups when they have experienced diversity in their personal life. Therefore, future training for resident advisors should include exposure to diverse populations and education on different culture's norms and values.

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Appendix

DEMOGRAPHIC, MUDAS AND DIVERSITY QUESTIONNAIRE

Demographic:

Gender: Male/Female/Other (DROPDOWN)

Year in school: 1st year/2nd year/3rd year/4th year/5th year +

Major: _____

Ethnicity: Caucasian/White; African American/Black; Asian American/Pacific Islander; Latino/Hispanic; Native American; International student; Multiracial; Other (DROPDOWN)

Disability? Yes/No/Do not want to disclose

Sexual Orientation: Heterosexual/Homosexual/Bisexual/Transsexual/Other (DROPDOWN)

How many semesters have you been an RA including this one? _____

Miami University Diversity Awareness Scale:

All measured on a 5 point Likert Scale of Strongly Disagree to Strongly Agree

I am aware of my own culture and ethnicity.

I am NOT comfortable talking about my culture and ethnicity.

I seek to learn about different cultures

I seek opportunities to interact with people from different cultures.

I appreciate and welcome the challenges and opportunities that diversity brings.

I do NOT share my appreciation of diversity with my friends.

A conscious effort should be made to teach cultural expectation in schools and/or classrooms.

Teachers should develop conflict management skills to solve cultural clashes.

I recognize the privileges I might enjoy because of my race, gender, sexual orientation, lack of disability, etc.

I consider cultural issues in my daily life.

This item is predetermined for the purpose of data analysis, please respond to this item by marking the "Agree".

I do NOT speak up when I witness instances of social injustice.

I do NOT have close friends from different cultures.

It is NOT important for me to learn a second language.

People from different nationalities should NOT be encouraged to retain their various customs, traditions and language.

A wide variety of religious diversity is good for our country.

I would welcome the opportunity to study abroad.

Addressing economic class differences tend to be divisive in everyday life. Although individuality is important in the United States, excessive differences in beliefs can hurt our society.

Stressing different cultural customs and traditions tends to reduce learning the basics (reading, writing, mathematics) in schools today.

The American public school system's curriculum should concentrate more on our common American identity rather than on specific ethnic groups.

I am aware of the effects that my culture has on those whose culture is different from mine.

I check myself to see if an assumption I am making about a person(s) is based on facts, not stereotypes about a group.

This item is predetermined for the purpose of data analysis, please respond to this item by marking "Disagree".

I realize that if I commit to promoting social justice, I too must change.

I do NOT know how to learn about people and cultures unfamiliar to me without being offensive.

I would welcome the opportunity to work in an urban community.

It is NOT important to value different sexual orientations.

Students with special learning needs should NOT be included in regular K-12 and college classrooms.

I will be comfortable working with individuals who have a variety of learning needs.

I believe that all individuals are capable of learning at a high level no matter what their personal background or culture might be.

Teachers (K-12) should be trained to effectively introduce issues of diversity in the classroom.

Teachers (K-12) should receive training in working with students that have diverse needs.

Professors should be trained to effectively introduce issues of diversity in the classroom.

Professors should receive training in working with students that have diverse needs.

I view promoting diversity wherever I can as an essential part of my role as a student.

I appreciate the range of cultural experiences that people bring to relationships or situations.

Personal Diversity Questions:

I am involved in clubs/activities that are about a diverse population from myself. Yes/No

I grew up in a diverse city/town/village. Yes/No

I have family members who identify with a diverse population.

Check all that apply: LGBTQ/Ethnicity/Race/Religion/Disability/Do not want to disclose

I have close friends belonging to a diverse population.

Check all that apply: LGBTQ/Ethnicity/Race/Religion/Disability/Do

not want to disclose

Number of residents:

Estimate the Number of residents you are ethnically, racially, or sexual orientation diverse from:

Rate on a 7 point scale of Not At All Like Me to Just Like Me:

If I do not understand a lifestyle choice, I openly ask questions.

If I do not understand, I research through online or paper sources.

I go out of my way to talk to diverse residents.

I learn about diverse residents more than non-diverse.

I am closer to my diverse residents than non-diverse.

My diverse residents come to me for help.

My diverse residents and I often have conflicts.

My diverse residents feel comfortable with members from other diverse groups.

Do you seek activities, seminars, or information pertaining to diversity?

Autism Spectrum Disorder and Professional Job Interviews

Ethan Tostrud¹

Business Administration

Advisor: Dr. Mitchell Sherman

Abstract

Autism spectrum disorders pose daily challenges to those who are diagnosed. In the workforce young adults with autism may face more adversity when seeking employment than those who are not diagnosed on the autism spectrum. This research sought out to find if traditional interviewing methods pose more of a barrier to success with people on the autism spectrum. The research included a survey that was issued to a sample population to identify the specific interviewing challenges. The researcher utilized survey data to detect the specific barriers young adults with autism face in professional job interviews. Based on results of the research specific challenges in the interview process were identified. Tools and strategies to overcome some difficulties were suggested.

Keywords: Autism Spectrum Disorder (ASD), job interviews, interview strategies

Introduction

This exploratory research attempts to better understand what role autism plays in the interview process. This research entails a study of the specific behaviors of the interviewees with autism and how this can impact the outcome of the interview. The hypothesis of this research is that young adults with an autism spectrum disorder have less successful outcomes at job interviews than young adults who have not been diagnosed on the autism spectrum.

Adults with autism spectrum disorders have been employed more by lower paid occupations they also struggled with long term employment and obtaining high skill level positions. Those adults in the study have been observed overtime and displayed obstacles to their success. The participants in Hendriks study had a variety of vocational needs and difficulties that played a major role in contributing to the barriers to their success in long term employment and higher level occupations (Hendricks. 2010 p. 127).

There are many barriers to success with autism, and many people may not be aware that a job interview and occupation search process may

be more difficult for adults on the spectrum. The goal of this research is to improve the lives of people with autism by using the information for further research. In hopes of developing alternative interviewing strategies and making employers more aware of the challenges that individuals on the spectrum face.

This research has valuable information that will expand awareness to help the lives of young adults on the autism spectrum. The research will be used to conduct follow up research and there is a likelihood that future programs and educational tools that can be utilized by employers, educators, and professionals. With future tools and programs there can be additional research to educate autism spectrum adults and non-autistic adults on how it affects people in work, education, and life. One of the intended outcomes of this research is to educate employers on how to create an environment where autistic individuals can overcome their challenges and succeed in interviews. Employers, human resource staff, coworkers, and interviewers can be educated on autistic behaviors and better understand when coming into contact with an autistic applicant and/ or employee. Further, this research seeks to inform employers the benefits of hiring autistic persons. The very optimistic outcome from this research is to encourage educational programs, workshops, and future research to achieve a labor market that can provide better opportunities for adults on the autistic spectrum. Those opportunities not just pertaining to minimum wage and part time employment, rather more skilled occupations such as teachers, sales, accountants, engineers.

Table 1

Terms and Definitions	
ASD Autism Spectrum Disorder	Big Picture label for all autism related disabilities
DOL Department of Labor	US Government department for providing labor information
DVR Department of Vocational Rehabilitation	US Government department for providing information and assistance with disabilities
High Functioning Autism	A term to explain persons who may function average or above average while having an ASD.
Low functioning autism	A person who is heavily effected by autism and cannot perform average task
Mild Autism	A person with a diagnosis high functioning autism or a disability that is lower on the spectrum
Severely disabled Autism	A person who is clinically disabled with an autism spectrum disorder
SHRM Society of Human Resource Management	Professional organization in handling items related to human resources
Young Adults with or without Autism	The age group explained is 17 to 29 some are full college students and others are fully employed, part time or unemployed.

Literature Review

The background literature helps identify useful strategies, tools, and techniques that might help young adults living on the autism spectrum to perform well in job interviews. Cohan (2001) advises "persons with autism

¹ Ethan is a McNair Scholar (Ed.)

should practice better eye contact and verbal communication in order to be more comfortable in average social settings" (p. 247).

One alarming statistic in regards to adults with autism is that (Society of Human Resource Management (SHRM) researchers found that "According to department of labor statistics, since 2009 less than 20% of disabled persons who were autistic were hired for higher skilled employment (SHRM, Owens 2010, p.9).

In addition the article by SHRM Hiring Employees with Autism "The labor market of today is enforced by laws such as ADA Aging and Disability Act, Civil Rights Acts, and anti- discrimination laws in regard to mental and learning disabilities" (p. 6). There recently has been more effort into achieving a more autism friendly labor market. More employers are hiring candidates with autism for higher positions than ever before. Even though there are more high functioning autistic adults entering the work force, there still are challenges those on the autism spectrum face every day (pg. 3).

Hendrik' (2010) explains in Employment with Autism Spectrum Disorder that "Adults who have been diagnosed as high functioning autism have better employment outcomes than autistic adults who fall into the mild and or severely disabled spectrum area" (125). Adults in the high functioning portion of the autism spectrum can be socially challenged meanwhile being talented. As for the autism spectrum as a whole, they all face every day obstacles such as social interactions and adult independence (Hendriks, 2010, pp. 126-131). The challenges autistic adults face may not always negatively affect the interview outcome.

Following high functioning autism, the mid-autism spectrum range includes adults who are more affected and may have more challenges with their disability in everyday life than high functioning autistic adults. As explained by Cohan's (2001) reading the Minds in the Eyes Test Revised Version "high functioning autism young adults had better eye contact and social scores than the mid spectrum and severely disabled autistic adults" (p. 242). If a non-autistic job candidate has better eye contact and social interaction this may result in better job interview outcomes. The high function autistic candidates may struggle to remember to keep eye contact and catch on to social cues such as head nods and handshakes. (Cohan 2001, p. 248). The mid spectrum job candidates may with have more improper social interactions and poor eye contact than those who are high functioning.

As explained in Cohan's research, one of the primary challenges autistic individuals face is social interaction with others. In a job interview, this creates a disconnection between the interviewer and the participating interviewee. Cohan (2001) states "most of the population of adults on the autism spectrum have major difficulties in eye contact, attentive behavior and facial recognition in body language" (p. 241.). Cohan explains that a majority of autistic adults face social challenge in daily life and those challenges may

also have an effect on job interviews. However, SHRM provides that "there are strategies to improve employment odds in autistic job candidates by having them participate in exercises such as practicing simulated interviews, mock social situations and eye contact concentration" (SHRM, 2010). High functioning autism spectrum adults should be aware that "practice makes perfect" (SHRM, 2010). They should be instructed to use such tools and strategies to improve their odds at a professional job interview. It is common knowledge that a firm handshake with eye contact is key at any interview, but this seemingly simple task for non-autistic adults can be a major obstacle for those who are on the autism spectrum.

In any occupation the autistic candidates will face many different types of interviews and some interviews can be more challenging. Many adults who are not disabled may find it less challenging to participate the different types of interviews. According to SHRM's webpage on job interview techniques "most adults will participate in a phone interview prior to an in person interview, this method is most common" (SHRM, 2010). Various job interviews may take the form of in person, in person with a panel, internet with audio, internet with video, phone, and web chat. All methods are common in the modern labor market especially with the advancement of web and phone technology. These methods may be less difficult for modern adults because there is more flexibility to choose the method that is most convenient. For example if a non-disabled adult is interviewing for a job that is far away from home they will likely choose a phone interview or an online video chat interview.

Most adults have anxiety and fears prior to the job interview that may have an impact on that interview experience. SHRM explains "most adults can be optimistic, hopeful, and nervous, have difficulty sleeping, feel stress, fear of failure, and lack of confidence" (SHRM, 2010). When the average adult is at the interview their behaviors change somewhat but are similar to the behaviors prior to the interview. SHRM list behaviors at the job interviews and gives tips on what to do at a job interview. The SHRM web page explains the behaviors and strategies in job interviews as follows "in a job interview the interviewee is often nervous but they attempt to hide their feelings" (SHRM, 2010). The candidate also may struggle to pay attention and speak confidently. In addition the candidate may have sweaty palms and fidgety body language. (SHRM, 2010).

The strategies that help most people in interviews is to take deep breaths, and think positive before the interview. It is strongly suggested that candidate research the company prior to the interview. This will result will be more positive experience (SHRM, 2010).

The behaviors and specific challenges that negatively affect interviews for high functioning autistic adults include eye contact, body language, nonverbal communication, facial expression recognition, and speech. Ac-

cording to the research by Cohan (2001) eye contact and body language shows more than actual verbal language in first impressions' (p. 241). Therefore autistic interviewees may have trouble with proper eye contact and body language. Eye contact and non-verbal communication is a major barrier for autistic adults in both everyday life and in interviewing. The lack of eye contact, lack of confidence in verbal communication and, lack of proper body language has a direct cause on how the interviewer sees the autistic interviewee. The interviewer will see the high functioning autistic adult candidate as non-attentive, disrespectful, not socially intelligent, and uninterested in the job. The same autistic candidate may be highly intelligent, interested, and well qualified for the job but because of the autistic behaviors in the interview their chances at obtaining the position are decreased.

Because there is a negative stereotype they may not feel comfortable disclosing this sensitive personal information to the interviewer. The interviewer not knowing that a candidate is autistic will not be able to understand their behaviors in the interview. Yet, there is also a chance that if the interviewer is informed that their interviewee is autistic then negative stereotypes of autism may influence their decisions. Also, in studies on statistics of autism and behavior of autistic adults by Wheman (2012) states

"Stereotypes of autism is damaging for all who are on the autism spectrum. When a person is labeled autistic they can be seen as severely disabled. Stereotypes of autism include incompetence, unreliable, and social isolation (p. 16)

The stereotypes that may in the mind of employers can cause more challenges for autistic job seekers. If there is more awakes of autism and the potential benefits of autistic employees, then the future for autistic job seekers can begin to look more promising.

Improving job interview experiences for high functioning autistic adults includes many useful tools and strategies. SHRM stated on their web page

There are many useful tips and tricks people generally can use for most interview types. It benefits the job seeker to practice questions and responses for the interview. Also it helps to practice body language and eye contact in a mirror. Simulated interviews and role playing are also suggested. (SHRM, 2010).

Prior to the job interview it helps to research the company and job position. Researching the job will better prepare the person for the interview. While preparing for the interview it also helps to take notes on the research of the job and use those notes to come up with possible job related questions that can come up in a job interview. With the questions the person should practice their responses both alone and with a role play person. In role playing an interview the autistic candidate can practice eye contact, confident speech, and non-verbal communication. When participating in job interviews

the person should be prepared for any method such as in person or over the phone. It always helps to know what method will be used when the company schedules and informs the candidate. It is also an individual preference to which method is easier to be successful with. The candidate should also practice and prepare for interview methods that are difficult and strange to them. Preparing, practicing prior to interviews and staying alert attentive, and clam while participating interviews will make for better success.

The spectrum of autism-related disabilities ranges from severely disabled to high functioning. The group of mild spectrum and high functioning autistic adults face many challenges and adversity on a daily basis. In the work force these challenges will have an effect on the success of job interviewing when an autistic adult attempts to gain a professional and skillful occupation. There are existing programs to aid the severely disabled but there is only a small amount of assistance available to high functioning autism spectrum adults. There is a need to aid high functioning autistic adults to find more skilled, higher earning occupations. There also is the need to educate professionals on autism and to discredit the negative stereotypes that the autism label can bring. The purpose of the research is to explore tools, programs and strategies to aid those young adults on the autism spectrum to be more successful and face fewer challenges when seeking professional employment.

Methods

There was a sample of full time students at the University of Wisconsin Stout who participated in the survey. College students from the university were divided into two groups. The control group as made up of the students who were not diagnosed with an Autism Spectrum Disorder. The experimental group consisted of the students who were diagnosed with an Autism Spectrum Disorder. The method of data collection was using identical Qualtrics surveys given to the two groups. The surveys asked questions about previous interview experiences, outcomes of those interviews, and autism related personality factors as well.

The survey was entirely confidential. The researcher had no names and/or any identifiers of subjects in each group. In order to reach the autistic spectrum experimental group the disability service office at University of Wisconsin Stout was assigned to anonymously send the autism spectrum students the survey via their email. The data was collected through the use of Qualtrics survey software. The control group consisted of randomly selected college students with the help of the PARQ office at UW-Stout, and the experimental group data was also to be collected through Qualtrics using identical surveys.

The participants consisted of a random selection of non-autistic college students at university of Wisconsin stout and autistic students who were

diagnosed. The control group was a sample size of 22 with 20 completed surveys. The experimental group has a sample size of 8 students with autism spectrum disorder and 7 completed surveys.

The survey was conducted after receiving IRB approval. The materials and facilities were used at University of Wisconsin Stout. The researcher received data from Qualtrics, a survey computer program that was used to manage and distribute the surveys via email. The surveys were analyzed and conclusions were made.

Results and Discussion

The results of both control and experimental groups were analyzed and compared. Numerical data related to the Likert scale responses were reported using Qualtrics and statistic software. Most of the survey was found to not have statistical significance due to small unmatched sample sizes. Some survey questions that showed noticeable differences between the control and experimental group are shown on Table 1.1.

The Likert scale based sections of the survey were analyzed using the. The T-test showed that there were too many variables and the sample sizes were small and unmatched. The decision to use Fisher exact method to re test the data and find significance on a few items.

Figure 1

Fisher Exact Method P-Value and Significance Chart				
question	section number	question number	P-Value	Significance level
I understand facial expressions	4	12	0.009027	1%
I can make friends easily	4	4	0.007091	1%
I can read interviewers facial expressions	3	5	0.03752	5%
I get along with co workers	4	5	0.05819	10%
I can handle my temper	4	7	0.06298	10%

The usual cut-off for significance is 5%, but questions showing 10% were listed. The remainder of all survey questions showed P-values and Significance levels that were unacceptable for the research. The question "I understand facial expressions" showed significance and correlates to the autism spectrum disorder. It is known that the ability to recognize facial expressions is one of the many challenges of autism. This suggests that facial expressions can be one of the major barriers that young adults with autism will face in a professional job interview. The question that specifically correlates facial expressions to performance during job interviews is "I can read intervener's facial expressions". The experimental group scored noticeably low on the Likert scale for this question. This suggests that the experimental group's lack of understanding the interviewer's facial expression may have caused them not connect socially. Without successful social connection in an interview the

chances of employment may be decreased.

Personality and behavior based questions that correlate to autism that showed significance were listed. The question "I can make friends easily" and "I get along with co- workers" showed notable differences between group responses. The control group data suggests that they can make friends easily and get along with co-workers more so then the experimental group. This correlates to the social aspects of Autism Spectrum Disorder which is known to affect social interaction and performance. People living on the autism spectrum struggle with connecting with others and forming relationships. In the professional job interview such social challenges may negatively affect the ability to connect and share with the interviewer on a personal professional level. When the survey asked "I can get along with co-workers" was another way of evaluating the two survey groups about relationships in a work environment. The experimental group responses also reflected that getting along with co-workers is an additional challenge for them. In the professional job interview this lack of relationship with co-workers is a sign that connection with the interviewer is a major obstacle. The final question shown on the table ask "I can handle my temper" was listed due to the significance level, but it is over the acceptable limit for P-Values, the acceptable value is $P = X < 0.05$.

The Likert scale survey questions overall were not statistically significant and future research will be needed. The main research question was "what are the major barriers to success in the professional job interviews for persons living with an autism spectrum disorder?" That question proved a challenge for surveying, but the beginning of some trends can be seen from the results. The trends that were found in the results were that survey participants who were young adults on the autism spectrum have more difficulty in social situations and connecting with interviewers. The specific barriers that were found were understanding facial expression, connecting with the interviewer, and making friends. Other factors that could have affected the professional job interviews, but did not show statistical significance were eye contact, proper handshake, confidence, and level of nervousness.

Future research should include expanding the survey. A new version of the survey can be made after more research to find better specific questions to ask. A survey can also be condensed to ask fewer questions meanwhile being more specific

In addition to the research results there can be suggestions made to improve interview performance for young adults with autism. As explained by SHRM elsewhere there are tools and strategies all adults can use prior to interviews. SHRM stated that "preparedness, practice, researching the company, staying calm, and connecting with proper body language are key in professional job interviews" (SHRM, 2010). Training programs and workshops can be created to teach young adults with autism spectrum disorders

how to improve their success in professional job interviews. Other than working with young adults on the autism spectrum, professionals and others can be educated on the challenges of autism.

Young adults with autism who are seeking employment can minimize the obstacles by practicing and preparing for professional job interviews. Future workshops and trainings can be designed to help with confident communication and facial expressions. Simulated interviews can provide one on one practice with autistic adults. In simulations non-verbal communication, eye contact, and facial understanding can be routinely worked until they are confident and prepared for interviews.

Professionals can be educated about autism and the daily challenges in other workshops. Those living with autism spectrum disorder can spread awareness by sharing their challenges, experiences and methods of overcoming obstacles. The awareness of autism can help professionals recognize the possibility that their interviewee may be autistic. Increasing the interviewers' knowledge of autism may help them make more educated hiring decisions.

Conclusion

The research regarding autism spectrum disorder and professional job interviews has shown some significance. The data suggests that additional research is needed. The results from Qualtrics survey participants were not statistically significant due to a small sample size. Future research projects will require larger sample sizes of participants and a restructured survey that is better designed.

Workshops, education programs, and training seminars can be created to assist young adults with autism spectrum disorders to improve performance in professional job interviews. Other than adults with autism, people in general can be educated on autism in the workforce. Though such educational events the audience can be made aware of the potential of employing high functioning autistic adults. Human resource professionals also can improve their ability to interview a potential autistic interviewee.

The lessons for autistic job seekers can include interview preparedness, career management, and professional social relationships. Workshops can provide a safe academic environment for autistic adults to learn to communicate effectively in job interviews. In workshops specific social hurdles such as eye contact and handshakes can be improved upon. Future research and programs will strive to create a more autism friendly workforce of tomorrow.

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Child Life Specialist: The Chief Executive Officer Perspective

Phylicia Fehlen

Senior, Human Development and Family Studies Department

Advisor: Susan M. Wolfgram, PhD, LICSW

Abstract

Within the pediatric hospital environment, child life specialists are changing the practice of pediatric medicine, turning traumatic encounters into growth promoting experiences with lasting effects on the health and well-being of hospitalized children (Tobin, 2013). Child life specialists are invaluable members of the health care team trained specifically in addressing the psychosocial needs of young patients, through an assortment of techniques aimed at creating a sense of normalcy in the young patient's life during hospitalization. Sadly, the general population doesn't understand the importance of a child life specialist until they witness first-hand the invaluable support they provide to a child. The lack of knowledge of the child life field has caused child life specialists to be seen as supplementary to other professionals within a pediatric hospital. This qualitative case study investigated the perceptions of the child life field from the perspective of a decision maker, a Chief Executive Officer (CEO) of a pediatric hospital in urban Minnesota. The purpose of this study was to gain more knowledge from a primary decision-maker about the value a CEO places on child life in an age of austerity. This study found crucial implications for practitioners; it's vital that child life specialists are aware of how others within the hospital view them, particularly those that are making decisions about budgets. They will be able to address these perceptions and assist health care professionals in better understanding the value and goals of the child life department.

Keywords: child life specialist, child life department, child life council

Introduction

Almost 200,000 children visit the hospital in emergency situations per day (Centers for Disease Control and Prevention, 2014). Often these situations include fast paced painful procedures that most children are not prepared to endure on their own. Luckily, around 480 hospitals in the United States utilize child life specialists to help children and their families through emergency procedures (Child Life Council, 2015). Child life specialists are trained to build rapport quickly with children while educating each child about their procedures and the hospital environment at their cognitive level. These inter-

actions between the child and child life specialist prevent what could become a traumatic experience for the child. Child life specialist help in a wide range of emergencies, such as providing distraction during stitches to providing emotional support to child and family when a child has become a victim of a near death accident. In 1982 when the Child Life Council was formed there were approximately 235 child life specialists in the United States; today there are over 3,000 child life specialists working to improve the hospital stay of children (Child Life Council, 2015). With the expansion of the child life field it is essential to understand the perceptions of the field from those who are making the financial decisions. Given the changes in the health care system, particularly focusing on cost management, it is important to understand the roles and responsibilities of the child life specialist as not that of a "supplemental" member of the health care team. According to Cole, Diener, Wright, & Gaynard (2001), if attempts are made by a hospital to reduce costs, the child life department may become an easy target for elimination because child life specialists can be viewed as nonessential "extras".

A pivotal definition in this study is the role of a child life specialist; according to the Child Life Council, they promote effective coping through play, preparation, education, and self-expression activities. These services are to provide emotional support for families and encourage optimum development of children facing a broad range of challenging experiences, particularly those related to healthcare and hospitalization (Child Life Council, 2015). Another critical definition is the services child life specialists provide to their patients. These services described by the Child Life Council are to provide direct care, consultation, supervision, education, advocacy, and environmental planning. (Child Life Council, 2015)

Cole et al.'s (2001) study found that child life specialists are viewed as being vital for the patient and the patient's family's psychosocial well-being, yet are perceived often as having little power or worth in the health care team. This present qualitative case study explored the perceptions of the child life field from the perspective of a Chief Executive Officer of a pediatric hospital. Chief Executive Officers possess an expert perspective of hospital needs and also are decision-makers regarding the budget and which health care professionals are considered "core" and which can be viewed as "supplemental."

Literature Review

The purpose of the review is to get a better understanding of the importance of child life specialists in the medical field as well as obtain knowledge of how other medical professionals perceive child life specialists (Turner & Fralic, 2009; Cole et al., 2001; Munn, Barber, & Fritz, 1996; Holloway & Wallinga, 1990; Gaynard, Hausslem, & DeMarsh, 1989). This review focused on studies conducted in the United States within pediatric hospital settings.

The Ebscohost database was searched for articles relating to the child life field, using keywords child life specialist and Child Life Council. There were very few articles about child life specialists and even fewer relating to the perception of the child life field.

Gaynard et al. (1989) used an observational technique to explore the role of a child life specialist as a member of the health care team. This study is one of the first systematic explorations of the child life world. It was found that child life specialists spend the majority of their time in direct patient service activities including developmental maintenance, patient and family support, and therapeutic play. Child life specialists were observed spending very little time with other health care professionals. The authors suggest that more research should be collected to determine the role of a child life specialist as a member of the health care team.

Turner and Fralic (2009) explored the assessment process of child life specialists through semi-structured interviews through email. The purpose of the study was to clarify the child life practice by making the assessment process of their patients more explicit. This analysis contributes to the appreciation of how the child life field works within a health care system. Child life specialists explained their processes of meeting a child and their family; they then identified aspects of the assessment process that occur during their ongoing interactions with patients, families, and health care professionals. Through the child life specialists' explanations we are able to clarify the child life process of assessment; this will allow others to understand how child life specialists integrate procedural knowledge to disclose the humanistic aspects of child life practice.

The purpose of Cole et al.'s (2001) study was to examine the perceptions of child life specialists by members of the health care profession. The results indicated discrepancies between child life professionals' perceptions of their responsibilities and other health care professionals' perceptions of child life responsibilities. Child life specialists are viewed by health care professionals as having little power amongst the health care team due to the lack of knowledge about the role of the child life profession. However, child life specialists viewed by health care professionals as being 3rd most important for the patient psychosocial well-being amongst the health care team; nurses were ranked first, physicians second (Gaynard, 1985). This research will enable child life specialists to understand how they are perceived, clarify possible misperceptions of their roles, and maximize the success of a child life specialist within a pediatric health care team.

Munn et al. (1996) studied the factors affecting the professional well-being of child life specialists using a conceptual model that depicts three measures: burnout, job dissatisfaction, and intentions to leave a job. Role stress was found to be the best predictor of emotional exhaustion and job dissatisfaction for child life specialists, yet was less predictive for inten-

tions to leave their jobs. Both role stress and social support may play a more influential role in the decision to leave a job. Social support from supervisors was found to have significant effects on personal well-being for child life specialists. Child life specialists who reported low levels of social support from supervisors were more likely to be dissatisfied with their work and more likely to leave their job. To counter those feelings, the authors suggested that supervisors should provide more detailed job descriptions to improve child life specialists' understanding of what is expected of them. It was also suggested that supervisors should provide emotional and instrumental support when working with child life specialists.

Child life specialist may become burnt out due to other disciplines within the health care team not understanding the importance of their role. Holloway and Wallinga (1990) examined the burnout rate of child life specialists in full time positions to determine the relationship between burnout and role stress. The results indicated that burnout exists for child life specialists, but is not as severe as it is in other human services professions. This is because those who enter the field of child life are more likely to be aware of the emotionally taxing and personal investment aspects of the job. Role ambiguity was also noted to result in burnout of child life specialists.

The articles were consistent in reflecting the lack of understanding of the role child life specialists play within a hospital setting. My study will contribute to the research relating to the child life field, especially to the viewpoint of the child life specialist's role within the health care team from the perspective of a CEO who is in charge of cost management.

Theoretical Framework

The theory used to explain the findings from this study was the Social Exchange Theory. According to this theory, individuals are in the pursuit of supporting relationships with benefits while minimizing costs (Cook, 2010). Applying this theoretical framework to my study Social Exchange Theory would predict that the benefits a child life specialist can bring to the child, family, and health care team during hospitalization outweigh the direct costs of employing a child life specialist.

Method

Participants and Sampling

The participant interviewed for this study was a CEO from an urban hospital which employed child life specialists. I used both purposive and snowball sampling methods for this qualitative email interview. The purposive sampling method was used because I had a direct purpose for interviewing this individual in order to gather the participant's rich lived experiences relating to the role of child life. The snowball sampling method was also applied, as I accessed the participant through someone who served as an "insider" and knew the participant. The participant was a forty-four year old female

who has held the Chief Executive Officer position for fourteen months at this hospital and has worked with child life specialists for twelve years.

Research Design

The qualitative approach used in this study was phenomenology. According to Patton, phenomenology is the study of lived experience (2002). The lived experience can come from multiple contexts including emotions, culture, relationships, jobs, and programs. The interview brings the researcher closer to understanding the participant's experiences.

An email interview was used for data collection (Meho, 2006). The underlying reason for this method is that email, rather than face-to-face interviews, was deemed most appropriate when under time restrictions for the class. This study was approved by the Institutional Review Board (IRB). The protection of the participant was addressed by completing the Human Subjects Institutional Review Board (IRB) training.

Interview Protocol

The semi-structured and in-depth interview protocol (Kvale, 1996) was created to study the perception of the child life field from a Chief Executive Officer perspective. The qualitative email interview began with a description of the study and a clarification of the risks and benefits associated with participating in the study. Also included were definitions of the terms child life specialist and child life services, the amount of time that would be needed to complete the study, statement of confidentiality, participant's right to withdraw information, the IRB stamp of approval, researcher and supervisor contact information, and the directions for completing the email interview.

The semi-structured interview protocol included the demographic information along with ten open-ended topic related questions that required her detailed lived experience. These questions were informed by the scholarly literature. Refer to Table 1 for interview questions.

Table 1		Interview Questions
IMP	Do you feel child life specialists are an important part of the health care team?	
ROL	Please explain the specific roles child life specialists hold within a health care team?	
EXP	Could you describe the experiences you have witnessed of a child life specialist that have been specifically beneficial to the patient and family?	
SUC	How successful have the child life specialists been in assisting your patients and their families?	
RES	What are your perceptions of the primary responsibilities of child life specialists?	
FAC	What factors do child life specialists focus on in order to assess the needs of a child and family?	
TRA	Please describe the training procedures your hospital uses to educate health care professionals on the services child life specialists can provide?	
INV	If your child was hospitalized would you request a child life specialist to be involved in their treatment plan?	
DYN	How would the dynamics change within the hospital if the child life field did not exist?	
KNO	Is there anything else that you would like me to know? If so, please add your comments here:	

Procedure

To request participation pending IRB approval, the participant was emailed on October 8th, 2014. The email included an introduction of the researcher and advisor, the course description, an explanation of how the study would be carried out, the study's requirements, and the purpose of the study. The participant emailed back, agreeing to participate in the study. After IRB approval, the participant was sent the email interview that included IRB approval, the implied consent form, and the interview questions, on November 5th, 2014. The participant was given only six days to complete the questionnaire due to the time needed for IRB approval. The participant's responses were returned via email on November 11th, 2014.

Data Analysis Plan

I recognize that I may have brought my own personal opinions and biases into this study. One of these biases may be that throughout my education and experiences I have learned about the contributions child life specialists can bring to the health care team. I came into this study with my own opinion of the importance of child life specialists during a child's hospitalization. Having these biases and opinions may have influenced the interpretation of the data.

A thematic analysis (Kvale, 1996) of the email interview responses was conducted and themes were determined by the responses from the participant. An acronym was determined for each of the interview questions: IMP, ROL, EXP, SUC, RES, FAC, TRA, INV, DYN, and KNO. The responses were read by the researcher to gain a general idea of the responses given by the participant. I wrote down what the overall ideas were, per interview questions and then identified themes per question. My adviser and I reached 100% inter-rater reliability agreement on the themes. Finally, I decided on appropriate quotes from the interview to best represent each of the themes found in the interview response as well as briefly defining each theme (Patton, 2002).

Findings

I have listed the interview questions as they were given to my participant, followed by the themes that emerged from my participant's responses. Each theme is then accompanied by a descriptive definition or primary point, followed by a direct quote that best represents the participant's response for each theme. The name I have used for my participant is a pseudonym, "Emily" in order to keep her identity confidential. The interview questions and the most relevant themes that emerged from each are listed below.

Table 2

Interview Questions and Themes Derived from Interviews	
Questions	Themes
Do you feel child life specialists are an important part of the health care team?	<ul style="list-style-type: none"> Important for patients
Please explain the specific roles child life Specialists hold within a health care team?	<ul style="list-style-type: none"> Family-centered and child inclusive care
Could you describe the experiences you have witnessed of a child life specialist that have been specifically beneficial to the patient and family?	<ul style="list-style-type: none"> Strong relationships that facilitate thriving patients Distraction therapy
Is there anything else you would like us to know? If so, please add your comments.	<ul style="list-style-type: none"> Poor representation by manager

Do you feel child life specialists are an important part of the health care team?

Important for patients.

Child Life Specialists are professional members of the healthcare team that work with hospitalized children.

"Child Life Specialists are important to pediatric patients post neonatal through adolescence."

Please explain the specific roles child life specialists hold within a health care team?

Family-centered and child inclusive care.

Family-centered care is the belief that health care staff and the family are partners, working together to best meet the needs of the child while ensuring that they are being inclusive to the child.

"Champion of family centered care and inclusiveness of patient in appropriate discussions and decisions..."

Could you describe the experiences you have witnessed of a child life specialist that have been specifically beneficial to the patient and family?

Strong relationships that facilitate thriving patients.

Child life specialists build special, trusting relationships with the pediatric patient while helping them understand and adjust to hospitalization through age-appropriate explanations, activities, and coping techniques.

"I have witnessed strong relationships and creative activities to help patients thrive during long hospitalizations..."

Distraction therapy.

Using age-appropriate distraction therapy and therapeutic play, child life specialists minimize stress and encourage coping in children during emergency procedures.

"...the most beneficial services witnessed are around distraction therapy to reduce need for anesthesia (local or moderate) during imaging studies and emergency department/urgent care procedures."

Is there anything else you would like us to know? If so, please add your comments.

Poor representation by manager.

In some cases child life department managers are ineffective at explaining the department's needs.

“...most managers are not effective in explaining why child life is needed, how it is different, how staffing/productivity is determined, and how patient selection is done.”

Discussion

The intent of this study was to examine perceptions of the child life profession and the services that the child life specialist provides to their patients and families, from the perspective of a CEO of a pediatric hospital, a decision-maker regarding cost expenditures in an age of austerity. As stated in Cole et al. 2001, little is known about perceptions of the role and worth of the child life profession within the medical setting. In order for child life specialists to work effectively within the health care team they must be aware of how they are perceived and what their role is in order to grow their profession. When conducting this case study, I found that the CEO was unclear regarding the services a child life specialist contributes to the health care team. A phenomenological approach was used through an email interview with Emily. Emily's responses mirrored the literature in affirming that the responsibilities and need for child life specialists is unclear. I will discuss each of the themes that emerged from the interview questions and how these themes connected with the literature, limitations to the study, implication for practitioners, and implications for future research, and concluding reflections.

Interview Questions and Theme Emerging from Participant

Do you feel child life specialists are an important part of the health care team?

Important for patients. Child life specialists are members of the pediatric health care team that focus on the psychosocial care of hospitalized children and their families (Cole, 2001). Findings suggest that those who are familiar with the child life profession and the services they provide to their patients have found child life specialists to serve an important role to the hospitalized child as well as to the health care team. Child life specialists psychologically prepare children for their health care procedures which makes the health care team's job significantly easier. The literature partially supports Emily's comments on the importance of child life specialists during hospitalization of a child during post-neonatal through adolescence. Emily however does not provide her opinion on whether child life specialists are an important part of the health care team. Her response leads me to believe that she does not understand the contributions that a child life specialist can bring to the health care team

but instead recognizes the child life specialist as an important service to the child. Child life specialists provide opportunities for the child to express fears or anxieties regarding their hospitalization through therapeutic play. This process decreases the child's anxieties and without it the child may not cooperate during the duration of a routine procedure, which could lead to the child needing to be restrained. More health professionals are then needed to restrain the child than otherwise would be needed during a routine procedure.

Please explain the specific roles child life specialists hold within a health care team?

Family-centered and child inclusive care. Child life specialists use a family-centered care approach when working with their patients and families. This approach is essential to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care providers, patients, and families. The key elements of family-centered care are respect, choice, information, collaboration, strengths, flexibility, support, and empowerment (Titone, Cross, Sileo, & Martin, 2004). Along with family-centered care, the child life specialist's role is to focus on including the child in the conversations when it comes to their health care decisions. This allows the child to feel "in control" of their surroundings within the hospital. Emily has shared with us that that child life specialists are the champion of family-centered care and inclusiveness of patient in appropriate discussions and decisions. Although family-centered care is important she did not explain the specific roles that a child life specialist holds with the health care team. This indicates to me that Emily is unsure of the child life specialist's roles within the healthcare team. It is important that Emily understands and explains the specific roles of a child life specialist. Her description may include that child life specialists are professionals who prepare children for their health care procedures, provide emotional support to the patient and family, facilitate therapeutic play with the patient and siblings, and use knowledge of child and family development to enhance the child's experience in the hospital.

Could you describe the experiences you have witnessed of a child life specialist that have been specifically beneficial to the patient and family?

Strong relationships that facilitate thriving patients. Child life specialists spend the majority of their work days helping their patients cope with their hospitalization because they are often psychologically unprepared for medical procedures and the stressors that the hospital environment brings (Cole, 2001). With the intimate nature of the care given by a child life specialist to the child, the two often build strong relationships. This research supports Emily's experiences regarding the

strong relationships that children build with their child life specialist throughout the duration of their hospitalization.

Distraction therapy. Child life professionals offer developmentally appropriate services, such as opportunities for distraction therapy including therapeutic play and procedural play. These services are provided before and during surgical procedures and have been known to be significantly effective in lowering the child's stress level. Distraction therapy is also used to keep the child still while the child is experiencing surgical procedures such as stitches or image studies like CT scans. Emily noted that she has witnessed some of the most beneficial services provided by a child life specialist through distraction therapy to reduce the need for anesthesia during medical procedures in the emergency department. The distraction therapy also eliminates the need for other medical professionals to restrain the child.

How would the dynamics change within the hospital if the child life field did not exist?

Poor representation by manager. Although child life professionals were rated highest among medical professionals in importance for providing psychosocial care of children, they were perceived as having little power in the health care team (Cole, 2001). Since child life departments are not actively supported or seen as a professional part of the health care team, they may struggle with explaining the importance of their department to those that are perceived to have higher power within the team. Emily's response is supportive of Cole's research. She explains that of the places she has worked, most managers are not effective when explaining the need for child life. Further research will help these managers effectively explain the need for the child life field.

Limitations

This study was based on the lived experience of one Chief Executive Officer of a pediatric hospital in an urban city in Minnesota. A limitation of this study would include the small sample size. Having a small sample is beneficial in qualitative research, but it limits the opportunity for statistical analysis and is not generalizable to be representative of all pediatric hospitals. Having only one participant also limits the findings to only the perspective of the professional overseeing the child life specialists. Another limitation was the minimal depth of our participant's responses. Having responses expanded would have allowed me to gain more knowledge and depth into her perceptions of the child life field.

Implications for Practitioners

This study found several implications that would benefit anyone working in the child life field:

- It is crucial that professionals in the child life profession be aware of how others within the health care team view them. They will then be able to address these perceptions and assist other health care professionals in better understanding the value and goals of the child life department.
- It is essential that the stereotype of child life specialists as having the primary role based on activity and entertainment of patients is addressed through education.
- Child life professionals should know how to educate other healthcare professionals about the importance of play in decreasing distress and facilitating healthy coping. Similarly, they should be prepared to educate other professionals regarding their role in educating, supporting, and advocating families and their children with the primary emphasis on family-centered care.
- Child life managers should be able to effectively advocate for their department the specific needs of the child life specialists on their staff. If the role of the child life specialist was valued then the field can progress and effectively provide care for patients and families.

Implications for Future Research

I collected data from only one participant and that limited my findings and ability to generalize. I recommend conducting this study with mixed methods of pediatric hospital health care professionals in order to get multiple perspectives. Also, future research would benefit from investigating deeply into the actual needs of the patients child life professionals work with to determine where the profession is needed. Not only getting the professionals perspective, but also getting the child life specialist's perspective would add more depth to such a study.

Conclusion

This study has taken a look at how child life specialists are perceived by a Chief Executive Officer of one pediatric hospital, in an age of austerity and budget cuts. The findings of this study will help increase the awareness of how other health care professionals perceive the roles and responsibilities of child life specialists. It will also reinforce the importance of child life programs, and the focus on addressing how to better educate health care professionals on the roles of child life specialists. By reforming pediatric medical education and cultivating a sense of unity and teamwork between physicians, nurses, and the child life specialists, the child life profession can continue to grow and innovate while being an invaluable asset to others.

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Depression & Anxiety in Critical Transitional Periods in an Adolescent's Life

Alexa DeMoe¹

Senior, Vocational Rehabilitation

Advisor: Colleen Etzbach

Abstract

Depression and anxiety during critical moments in an adolescent's life, such as entering and graduating high school, may be more prevalent than many individuals think. I examined adolescents and rated the amount of depression and anxiety they were experiencing, as well as what coping mechanisms were common among these adolescents and whether they were healthy or unhealthy.

The research involved going to local school districts around the Menomonie, Wisconsin area and evaluating previous surveys that the school districts have already administered. The surveys gathered by the school districts analyzed depression and anxiety in the students, and what coping mechanisms the students were using with a heavy concentration on substance abuse knowledge and use.

The purpose of this study is to find out how much depression and anxiety is affecting these students as well as what coping mechanisms they are using. We also investigated healthy resources students are using in their school district as well as in their own community. Furthermore, the purpose is to raise awareness to the school systems about how students are dealing with depression and anxiety and to help students identify the resources that are available to them.

Keywords: depression, anxiety, adolescent, coping skills

Introduction

Depression and anxiety during critical moments in an adolescent's life, such as entering high school (8th grade) and graduating high school (12th grade), may be more prevalent than many individuals think. Moving from middle school to high school can be a very challenging time in life and it can cause a lot of anxiety in youth. Some adolescents can handle this transition fairly well, while others have a more difficult time coping with the stressors that come along with this transition in their lives. Many adolescents may even start using negative coping mechanisms that people may label as "just being a kid". Some of these coping mechanisms could be things

like talking back, getting angry, yelling, or even more dangerous things like smoking cigarettes, using marijuana, or drinking alcohol. The same thing can be said of young adults in 12th grade. These individuals are overwhelmed thinking about their future and the added stressors in their life. Making sure these young adults already have an arsenal of healthy coping mechanisms is a key to their future success.

A major aspect of adolescence and young adulthood is learning how to self-regulate their emotions, cognition, and behavior. It is imperative during the adolescent and young adult years to learn self-regulation. Self-regulation has an impact on mental health, physical health, interpersonal communication and academic functioning (Wadsworth, Rieckmann & Compas, 2004). Part of self-regulation is coping with the stressors in these individual's lives and making sure to use healthy coping mechanisms. Another important aspect of dealing with stress is making sure that a person can identify what their stressors are and find a way to cope with what they find. Starting to learn these skills at a young age can help promote positive health all around. Another reason why this research is so significant is because adolescents are actually some of the most vulnerable individuals alive. Adolescents are not being screened for mental illnesses, being properly diagnosed, receiving referrals or proper treatment for their issues. Many adults view certain behaviors that adolescents and young adults have as "acting out" or that they are "going through a phase" and hope these behaviors pass. Because of this, a number of adolescents are not brought to a professional to get help until the behaviors have been neglected for a substantial period of time and have escalated from getting into trouble at school and in the community to being a threat to themselves and others. At this point the professionals are worried about working on the specific behaviors that are presenting themselves, and unfortunately the treatment outcome could be compromised because it is much more difficult to treat (Yearwood, 2012).

Many professionals are pushing towards prevention and early intervention instead of waiting until behaviors progress (Yearwood, 2012). According to Yearwood (2012), "...the American Academy of Pediatrics (AAP) developed a policy statement on competency guideline that strongly recommend that healthcare providers in primary care screen all children and adolescents for behavioral and psychiatric difficulties" (p. 51). The fact is that there is an inconsistency between the number of children who need mental health care and the low number that are actually being treated for mental health disorders by a specialist (Yearwood, 2012).

Finally, this research is necessary because of the implications that traumas and stressors can have on an adolescent or young adult's development. There is a variety of "stress-related chronic non-communicable diseases" such as cardiovascular diseases, chronic respiratory diseases, diabetes, arthritis, and neuropsychiatric diseases that can appear physically (Fric-

chione, 2014). These diseases occur over a long period of time and would not become evident until adulthood, but teaching youth how to cope and manage stress in a positive way could help prevent these incurable diseases. Fricchione (2014) also mentions that children are suffering from toxic stress after traumatic events which can then lead to chronic illness. Something that is also very important to keep in mind is that the timing of traumas is correlated to brain development. It is believed that the effects of stress early on in life are connected to an increased reaction to stressors and cognitive deficits in adulthood as well. The prefrontal cortex in an adolescent's brain is believed to be extremely vulnerable, and the prefrontal cortex is involved in an individual's response to stress, attention, organization, self-regulation, and planning. Traumatic events in an adolescent's life could possibly affect the individual's brain development, developmental skills, talents, personality development, and functioning. Knowing all of the psychological effects that trauma and stress could bring into a child's life makes screening for the presence of these and educating the public about the implications of trauma and stress very important. Also, disorders that were previously diagnosed as adult disorders are now believed to have developed during childhood in the patient's life (Nader, 2001).

The purpose of this research is to get information about the levels of depression, stress, and common coping strategies that these students are using or experiencing on a day-to-day basis. The objective is to bring awareness to the public about mental health in students and the ways in which students are coping with the stressors of their lives, and these results should assist with that. The ultimate goal is to make teachers and parents more alert for signs of mental health issues and negative coping strategies in adolescents, and to make the topic of mental health a common and easy subject to discuss.

Literature Review

Trauma and the Adolescent's Brain

An important aspect to look at while thinking about stressors and traumas in an adolescent's life is the impact that they can have on their brain development and functioning. Gabowitz, Zucker, and Cook (2008) refer to a complex trauma as an experience in an individual's life that occurs within the child's upbringing. These traumas can be things like, "sexual, emotional, and physical abuse; neglect; loss; and witnessing domestic and community violence" (Gabowitz, Zucker, & Cook, 2008, pg. 163). Early on, these traumas can put the victim at risk for other disorders; the victim is particularly at risk for mood, anxiety, substance abuse, eating, conduct, personality, dissociative, and attention/learning disorders. The school districts should use this information to become aware of what to look for when they are working with an adolescent. It would also be helpful to pass information about past traumas

onto faculty members so that they can be aware of the possibility of negative behaviors occurring in that adolescent. Adolescents may deal with trauma by "acting out, risk-taking and self-destructive behaviors (e.g., sexual promiscuity, substance abuse, dangerous reenactment behavior, and delinquency), as well as depression, withdrawn behaviors, and somatic complaints" (Gabowitz, et al., 2008, pg. 166).

According to Nader (2011), trauma can also impact an adolescent by affecting their ability to view relationships as dependable or nurturing (Nader, 2011). If an adolescent is withdrawing while in school they may have been or currently be experiencing some form of trauma in their life and need help. It would be important for faculty members to be aware of all of these signs so that they can help these adolescents.

Importance of Coping Skills

Coping skills are becoming a much more common form of intervention for individuals as well as emphasizing the importance of finding healthy coping skills at a young age. In a multisite study about coping skills among adolescent suicide attempters by Bojan Mirkovic and colleagues (2006) it was hypothesized that the use of healthy coping mechanisms can lower depression scores and affect the presence of suicidal ideation. Statistically speaking, in the western world's population of adolescents suicide is one of the leading causes of death (Mirkovic et. al, 2006, S38). With this in mind, it is important to note that major depressive disorder is strongly linked to the occurrence of suicide.

There is a model that was created by Frydenberg and Lewis (2006) which differentiates between productive and nonproductive coping styles. Productive coping styles are to "focus on solving the problem, work hard to achieve, focus on the positive, seek relaxing diversions, and physical recreation". Nonproductive coping styles include: "worry, wishful thinking, not coping, tension reduction, ignore the problem, self-blame, kept to self, and seek to belong". The majority of nonproductive coping styles are centered on avoiding feelings (Mirkovic et. al, 2006, S40). Being aware of these different types of coping styles, as well as having knowledge about their effectiveness, could benefit anyone working in the school system. If an adolescent is presenting nonproductive coping styles a faculty member can use their knowledge on the subject matter to help foster healthier coping skills.

The results of this study correlated with what the researchers hypothesized. The adolescents who used productive coping skills had lower depression scores and less suicidal ideation as a result. It was found that the adolescents who still presented suicidal ideation were more likely using nonproductive coping skills. The study found that there are actually three coping strategies that can be precursors of depression which are not self-blame and tension reduction. Looking at the results of this study, it would be helpful for

school faculty to encourage productive coping skills (Mirkovic et. al, 2006, S44).

Stress during Adolescence

Many adults forget the amount of stress that students experience. In reality, the time spent in adolescence is considered the most unstable time period in an individual's life. Adolescents are no longer children who are totally dependent on their parents/guardians, but they are not yet adults with the stability of a job and/or family. Most adolescents have to deal with the stress of school, home life, and social life. On top of these three main stressors, "according to Erikson, the major task of adolescence is identity formation" (Allison, Adlaf & Mates, 1997, p. 253). This includes difficult tasks such as deciding the direction of one's future. The intensity of an adolescent's stress concerning their future could increase due to "well-meaning" adults who have high expectations for them; this is especially true when it comes to academia. Adolescent's social relationships can also be a source of stress because of the "pressures to conform to group norms regarding clothing styles, patterns of speech and leisure pursuits" (Allison et. Al, 1997, p. 254). There can also be stressors in adolescent's home life. Some aspects that can be of concern are the relationship between the adolescents and their parents and/or siblings. There can also be additional stressors in regards to how free time is being spent, tension in the household, and disagreements on the rules of the house (Allison et. al, 1997, p. 253-254). This is all important for faculty members to keep in mind. Although it is easy to look at these adolescents as children, the majority of them are dealing with a great amount of different stressors and need guidance in finding healthy coping skills.

Risk of Depression in Schools

Dunn (2015) notes some key statistics such as approximately 12% of young people meet the criteria to be diagnosed with major depression and about 29% of high school students have reported feelings of sadness or hopelessness almost every day for about 2 weeks. It is critical to be looking at school districts for mental health issues in youth because schools educate more than 95% of adolescents for a large portion of their adolescent life (Dunn Milliren, Evans, Subramanian, & Richmond, 2015, 732). This article not only focused on the school districts, it also looked at the neighborhoods in which youth are growing up. Unlike in schools, the neighborhoods are a place where youth have the most "unstructured" time; this makes it just as important to look at as the youths structured time spent in school.

Dunn and colleagues' main purpose was to look at youth health and behaviors in schools and neighborhoods. It was found that schools may have a more prominent impact on depressive symptoms among these adolescents. This is critical because it would be important for all school districts to look

at interventions for their adolescents to help reduce and screen for depressive symptoms. It also makes sense that school systems would be the first line of defense when it comes to major depression because during school students have large amounts of adult supervision. School districts are now integrating different types of health as well as developmental interventions. Adding mental health to the list of interventions a school instigates could be extremely beneficial for the adolescents. Lastly, schools do have these opportunities to educate and even perform mental health screenings on their students which makes it the optimal place to monitor their mental health status and be able to intervene if necessary (Dunn et al., 2015, 737-738).

Supports in School Districts

School systems are not only places for education, but also are primary social settings for adolescents. In the article, "Implementing Schoolwide Positive Behavior Interventions and Supports in High Schools: Contextual Factors and Stages of Implementation" by Jessica Swain-Bradway and colleagues, the issue of implanting positive behavior intervention and support is discussed. It shows that many high schools are actually behind in this area compared to elementary schools (Swain-Bradway, Pinkney, & Flannery, 2015, 245). In short, this intervention is meant to include all students and each student's specific needs. For example, if an adolescent had consistent behavioral issues in school, a positive behavior intervention would be used to make an individual plan for that adolescent depending on why these negative behaviors are occurring. This could be an extremely effective screening process for adolescents throughout their schooling life for not only mental health and drug use, but a wide variety of other issues that can hinder academic success. This research showed a direct relationship between the positive behaviors intervention and academic success and social behaviors. This intervention supports the theory that social behaviors are a means to academic success (Swain-Bradway, 2015, 246-247). By seeing that social behaviors and academic success are related it makes it an easy choice to further monitor and help adolescents

Problematic Substance Use in Adolescence

Substance use can have a devastating effect on adolescents academically and personally. The negative effects have the likelihood of lasting into adulthood. Substance abuse can also be linked to symptoms of depression as well as poor academic performance. According to Russel Falck (2012), "research shows that the earlier the age of onset of drug use, the greater the likelihood of later abuse and/or dependence" (Falck, Nahhas, & Carlson, 2012, 217). This is why having an earlier intervention with adolescents can make all the difference in their current and future success.

Something else for school systems to keep in mind is the homes

students come from. A study was done by Dusan Backovic and colleagues where they looked at the difference of substance use in adolescents living in foster care and those living with their birth families. The results of their study showed that adolescents who have tried marijuana or tobacco were most commonly seen in the foster care system (Backovic, Grujlcic-Sipetic, & Mksimovic, 2006, 341). After seeing these results, it would be a good idea for school districts to not only have intervention services available for their adolescents, but also prevention services for adolescents that may be at risk.

After looking at all of this information it is clear that school districts should be focusing on mental health and substance abuse issues throughout students' academic lives. Helping these students learn about good mental health and positive coping skills can help them avoid extreme traumas and dependency issues throughout their entire lives.

Methods

This project involved collecting data from the Menomonie School District and Colfax School District. The data involved surveys that were recently taken by middle and high school students. The surveys looked at the adolescents' substance use and why they were using these substances. It also included information on their mental wellness. After collecting the data from the school districts I looked at the results for 8th and 12th grade students and then analyzed what was found.

Results & Discussion

The Colfax Youth AODA survey was completed by 7th – 12th graders, but for the purposes of this research only data from 8th and 12th grade students were examined. Fifteen percent of the responses were from 8th graders and 12% of the responses were from 12th graders.

After the first three generic questions the students were asked who the specific caring adults were in their lives. It was not a surprise that in both grades Mom and Dad were the top responses. Something that was interesting to see was the fact that when looking at students in 8th grade only two responded with school personnel as being a caring adult, but in 12th grade there were six responses that school personnel were important caring adults in their lives. This shows that as adolescents are maturing into young adults they are attributing more importance to their teachers. This could be because they are at a point in their lives when they are looking forward to their future in a professional manner. Teachers may see signs of mental health issues such as depression or anxiety, as well as the use of negative coping skills such as substance use and abuse.

The next prompt had the students answer two questions. How often they felt (1) little interest or pleasure in doing things and (2) feeling down, depressed or hopeless. An interesting finding is that a statistically significant

amount of students in the 8th grade responded with "Nearly Every Day" to questions 1 and 2 even though most of the students responded with "Not at all" or "Several Days" to both questions. Although there is not a majority of students who have these feelings, there is still a significant amount that do and would benefit from support.

One of the most insightful questions was a short answer question that asked, "As a young adult, what are some of your greatest struggles?" The most common responses for 8th grade students were: no problems, school and family struggles, essays, and specific school assignments. Some specific issues for the 8th grade students were: depression, self-harm, fitting in, finding a job, and having your parents go through a divorce. During this difficult time students are dealing with a wide variety of stressors and concerns, so depression and self-harm can become a very real possibility. Having the faculty at the school trained to see these warning signs, as well as informing parents and students of the negative implications of unhealthy coping skills, could help make mental health topics an easy subject to discuss for all of the parties involved.

Students in 12th grade listed school and managing multiple commitments as their most common responses to this question. Having to stay on top of school, college applications, a part-time job, and a social life can make this period of time in a student's life overwhelming. Some specific comments that were made by 12th grade students were peer pressure, popularity, sex, relationships, friends, alcohol, beer parties, homework, sports, and maintaining a social life. This shows that as adolescents are maturing partying becomes a more accessible option. Peer pressure when it comes to sex, drugs and alcohol is increasing at this age. Because of this, it's important to have an open dialogue regarding these issues.

The students who listed specific drugs reported that the most popular drugs were methamphetamine and marijuana. It is vital that students be aware that these drugs are in the school system, but it could also mean that these drugs could be easy to access in school or in their community.

There was also a survey done by the Menomonie School district for 7th through 12th grade students that was centered on substance use. The goal was to find out how popular these substances were in each grade. The Menomonie School District survey covered a wide range of topics when it comes to alcohol and substance abuse. When it comes to having access to alcohol, boys and girls in the 8th and 12th grades most commonly responded that were getting alcohol from friends and at parties. It was surprising that in 8th grade a higher percentage of boys and girls reported getting alcohol from their parents than in 12th grade. This could mean that they are sneaking or stealing alcohol from their parents more in 8th grade. For boys and girls the most popular answers regarding reasons for substance abuse focused around escaping from school, family, personal problems, sadness, loneliness, anger,

or to get high or smashed. This was in respect to both 8th and 12th grade students. The most common answer all around was "to relax". Relaxing could mean the same thing as escaping problems, and substance abuse would be categorized as a negative coping skill when other skills could be utilized. Something intriguing was the fact that more 8th grade students responded to the option "because my friends do" for reasons why they use drugs than 12th grade students. This could be because in 8th grade students may be feeling more pressure to fit in somewhere and unfortunately using drugs has become a very popular part of today's youth culture. In contrast, in 12th grade the issue of parties becomes a bigger issue. With the increased freedom that comes with becoming an adult, parties that involve illegal substances become more tempting. The next chart regards substance abuse and the consequences that the adolescents can self-identify with at that moment. Some common answers for both grades were using the substance of choice more than intended, and not being able to remember what they said or did. With age the numbers increased for both of these responses. This could be because adolescents and young adults are testing their limits more and using more than the 8th grade students. Some very negative and scary responses were that the 12th grade students in particular are now dealing with drinking and driving, or riding in a car with someone who was drinking. Making sure to have programs regarding drug safety in school as the students age could help safeguard them to the risks of substance abuse.

The next section of the survey specifically examined the mental health status and support system of 8th and 12th grade boys. In the survey regarding core indicators of alcohol use in boys it is important to note that the frequency of use is increasing dramatically from 8th grade into the 12th grade. One section of the survey is about the poor mental health status of boys. The percentage of boys who reported they were feeling discouraged, hopeless, and feeling like giving up last year more than doubled from 8th to 12th grade; this was also the case when it came to feeling stressed quite a bit (almost more than they could take) within the last year (the survey results did not provide information regarding students actively seeking help for those issues). 33% of boys in the 12th grade reported having suicidal thoughts in their lives. Helping students become more comfortable talking to a trusted adult could help them learn to cope with stressful situations that they will undoubtedly face throughout their life. Many boys also saw some sort of physical symptoms when it came to their mental health that could be very disruptive throughout their day; for example, 21% of 8th graders and 33% of 12th graders reported getting a lot of headaches, stomachaches or some other sort of sickness. These symptoms could be interfering with their school days and social lives, so helping out students and educating them on positive mental health would be productive to all parties.

Another great help to students is their support system. There are

a small number of students who feel like they have no one to turn to, and these are the students that should be especially focused on because they are at the greatest risk of substance use and poor mental health - they feel like they have no one they can depend on. On a more positive note, the survey showed that a good majority of the male students in both grades reported engaging in meaningful activities in their lives such as homework, religious activities, volunteering, clubs, and sports. These activities can make the students feel as if they have a purpose in their lives and could give them a support system.

As was seen with the boys, the girls also showed a major increase in alcohol use from 8th to 12th grade. Looking at the poor mental health status of girls, the girls in general had higher numbers throughout the entire chart. The most shocking statistic was that 42% of girls in the 12th grade admitted to having suicidal thoughts. This is worrisome and should be something that is addressed throughout the school system. These young women should be getting more support throughout their day, especially since such a large majority of a student's time is spent in school. The school system can be one of the best and most effective resources to reach adolescents; this is especially true with serious topics such as substance abuse and mental health problems. As with boys, a small number of girls in both 8th and 12th grade did feel as if they did not have a good support system in their lives. This is an issue that could cause serious problems in any adolescent's life.

Similar to the boys, a good majority of the female students did have meaningful activities in their lives. Having more activities available to students in school could have positive effect on everyone. If students are involved in at least one activity then they are more likely to build a positive support system in their life.

Conclusion

This research shows that adolescents going through critical transitional periods in their lives are at an increased risk for mental health issues. Having early interventions with these adolescents has been shown to be an extremely effective way of dealing with this issue. Future research should explore further interventions to place in the school systems.

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Does Student Residence Influence Physical Activity at UW-Stout

De'Andre Jones¹

Senior, Family & Consumer Sciences

Advisor: Diane Klemme, Ph.D

Abstract

The University of Wisconsin- Stout's campus is divided into two sections: North Campus and South Campus. North Campus is comprised of Student Health Services, four active residence halls, a dining facility, and 24-hour fitness center. South Campus, also known as the main campus, is comprised of thirteen residence halls, nine academic buildings, the student center, a five-story library, and the Johnson Fieldhouse, which is home to the sports and wellness facility. The purpose of this research was to determine whether or not a student's major, residence location on-campus, and involvement impacts overall health, nutrition, and physical activity.

A random survey of UW-Stout students was conducted to determine if students' residence influenced physical activity. Undergraduate and graduate students who lived in the residence halls on-campus, and off-campus at the University of Wisconsin- Stout were surveyed. The findings did not support the original hypothesis that students who lived on North Campus had more accessibility to or utilized the fitness center despite the further distance to travel towards South Campus. Therefore, students on North Campus engaged in more physical activity. However, the survey results showed that participants did not partake in health and wellness services due to having their own workout routine or lack of a workout partner.

Introduction

The University of Wisconsin- Stout is a prestigious polytechnic university providing students both nationally and internationally with a variety of relevant and interactive programs. The campus has been recognized for being located in one of the best small towns in America, achieves high employability rates for graduates, and provides faculty and staff who are experienced in their disciplines. As of 2013, 40% of UW-Stout students lived in campus owned/affiliated properties, while 60% lived off-campus. UW-Stout's campus is divided into two sections. North Campus is comprised of Student Health Services, four active residence halls, a dining facility, and 24-hour fitness center. Transportation for North Campus students includes the option of riding on the free Stout Route shuttle, walking, biking, or driving to commute

to campus. Students who live off-campus are likely to utilize mobile transportation whereas the students who live on main campus may not need to utilize any form of mobile transportation with the exception of walking due to the close proximity of all academic buildings and facilities. South Campus, also known as "Main Campus", is comprised of thirteen residence halls, nine academic buildings, the Memorial Student Center, the Robert L. Swanson Learning Center & Library, and Johnson Fieldhouse housing Stout Adventures and our sports and wellness facilities. Stout Adventures is a facility on campus that has two 30 feet rock climbing walls, hosts camps and clinics, as well as outdoor sports & recreation equipment rental services. The purpose of this research is to determine whether or not a student's major, residence location on-campus, and involvement on-campus impacts overall health, nutrition, and physical activity.

This study closely relates to the numerous research studies; Dusselvier, Dunn, Wang, Shelley II, and Whalen, (2005), Yilmaz (2014), Wagner, D.R., Christensen, S.V., Christensen, S., Blaney, P., Wengreen, H., & Heath, E.M., (2010) completed. They considered the factors influencing student behavior, nutrition, and decision making in connection to their overall health. Often times when a student leaves for college, it is their first attempt at establishing transitional independence. This independence allows for the ability to make educated decisions in regards to their overall nutrition, time-management, and dedication to remaining active in physical activities such as sports, fitness classes, or weight lifting.

The importance and overall goal of this study is to provide unique information specific to our university in order to provide departments such as University Housing, the Robert L. Swanson Learning Center & Library, and Student Health Services a deeper insight into their student's habits and needs. Ideally, these departments would utilize the results from this study to implement changes that would assist students in maintaining physical well-being.

Literature Review

Personal, Health, Academic, and Environmental Predictors of Stress for Residence Hall Students

Dusselvier, Dunn, Wang, Shelley II, and Whalen (2005) identified numerous factors and outcomes that can result from stress living off-campus in comparison to the residence halls on campus. Findings included that women and United States (US) citizens experienced greater stress than did men and non-US citizens, respectively. Frequency of chronic illness, depression, anxiety disorder, seasonal affective disorder, mononucleosis, and sleep difficulties were significant stress predictors. Although alcohol use was a positive predictor, drug use was a negative predictor of stress. Both a conflict and a satisfactory relationship with a roommate, as well as a conflict with a faculty or staff member, were also significant predictors of stress. (Dusselvier, et al, 2005)

Dusselvier's 76-item survey consisted of 2 sections and was more extensive and personal. The first section consisted of 40 residence hall feedback questions, which aimed to target the student's thoughts and attitudes towards life in their residence halls. The second section of questions focused on the extent to which students' perceived health and personal issues in their own lives. The final qualitative question they asked students about was the "1 item . . . [they feel] causes . . . the greatest stress during the semester". (Dusselvier et al, 18)

Highlights of Dusselvier et al. provided the researchers with the following breakdown of information for key stressors within the residence halls at their specific university:

TABLE 1

Key Stressors	Percentage of Students identifying stressor	Increase or Decrease in students' Stress level
Greater concern for a troubled friend or family member and perceived conflict with faculty/staff	12.9%	+67.4%
High alcohol frequency	33.1%	+67.1%
Self-reported sleeping difficulties	37%	+67.4
High drug use	3.7%	-67%
Police action	10.3%	-67.4%

TABLE 2

Residence Hall Atmosphere	Percentage of Students identify stressor	Increase or Decrease in Students' Stress level
Comfortable	94.7%	+67.1%
Respectful	78.7%	-64.6%
Studious	86.3%	-67.1%

Three demographic variables were significant in the model. Women (85.3%) and US citizens (66%) reported more frequent stress than did men (52.3%) and non-US citizens (14.3%), respectively. Also, students with more

fall semester hours reported more frequent stress.

The Correlation between Nutrition and University Student's Self-Efficacy

Yilmaz (2014) investigated the correlation between student's daily eating habits and their self-efficacy using the "Health Perception of Self-Efficacy Scale." This scale asked participants a series of questions with response choices being numbered between one and four (one being low and four being high). Subjects needed to select the response that closely related to what they felt was their own self-efficacy. The intent was to obtain data demonstrating the student's dietary habits and sociodemographic characteristics. Participants in this study consisted of a variety of students and faculty at Nidge University in Turkey. Yilmaz observed 332 female and 325 male students at Faculty of Arts and Sciences, School of Physical Education and Sport (PES), Vocational High School, Faculty of Education, Faculty of Social Sciences and the Faculty of Engineering."

Yilmaz (2014) found that there was a significant difference in self-efficacy between genders, with males having higher levels. They also analyzed the impact alcohol consumption and individual smoking habits have on self-efficacy levels. There were a variety of factors that influenced a significant change in student self-efficacy. Higher self-efficacy was found in relation to student participation in sports, students who ate at least three meals per day, consumption of alcohol only one-time per week, and when students paid attention to their nutrition. Lower levels or decreases in self-efficacy occurred when students smoked.

Alcohol-Impaired Driving Behavior and Sensation-Seeking Disposition in a College Population Receiving Routine Care at Campus Health Services Centers

Balousek, Fleming, Mundt, Wilson, and Zakletskaia (2008) created this study with an aim to investigate the effect that sensation-seeking behavior in college students had on self-reported alcohol-impaired driving. The investigation adjusted the demographic information of participants based on their residence and drinking locations. Participants were all college students over the age of 18. Balousek et al. (2008) found that sensation seeking remains a statistically significant independent predictor of alcohol-impaired driving behavior." The results from this study found that older, white, sensation-seeking college students living off-campus were at the highest risk for alcohol-impaired behaviors while driving.

Weight and Body Composition Change during the First Year of College: A Study of Traditional Residence Hall Freshman

Blaney, Christensen, Christensen, Wagner, Wengreen, and Heath

(2010) with the Health, Physical Education and Recreation Department and the Nutrition and Food Sciences Department investigated the changes in weight and body composition of first-year students living in the residence halls of Utah State University.

The methodology required the researchers to track body weight, body mass index (BMI), waist circumference, and body fat percentage. Their sample included both male and female students who responded to a physical activity questionnaire. Participants were measured at the beginning of their first year (September), the end of their first semester (December), and once again at the end of the spring semester (April).

The authors found that over the 7-month period, there was an increase in individual weight, body mass index, and waist circumference. No change was reported in either males or females in regards to individual body fat percentage. There was a correlation between caloric intake and its effect on body weight, body mass index, and body fat percentage. Changes in body fat percentages could be closely related to the amount of time spent on physical activities. Ultimately, the weight gain of freshman at Utah State University was less than 15 pounds.

Understanding Weight Management Perceptions in First-Year College Students Using the Health Belief Model

Das and Evans (2014) examined the perceptions, challenges and beliefs of first-year university students on their personal weight-management. In order to determine those three components, the authors studied the relationship between the three components and the student's individual self-efficacy by utilizing the Health Belief Model. This 1950's based model was used to assist in collecting data that focused on the attitudes and beliefs of participants in order to better explain, predict, and understand their personal health behaviors. Factors that they considered when completing this study included challenges such as freedom of choice in regards to lifestyle, varying social environments, daily schedules, as well as the overall transition from living at home to living on a university campus. They also considered the dietary and nutritional choices that students made during their first-year of college.

The authors suggested that since physical activity and dietary patterns may be altered during the college experience, college students gain weight during their collegiate years. (Das et al, 2014) Their findings determined that:

- Benefits to weight management include opportunities to bond with others, social engagement, and the ability to manage stress effectively.
- Men viewed weight management as important when securing a career and finances.
- Women viewed weight management as important and as an aid in their ability to multi-task.

- Men believed that the majority of their barriers in relation to weight management were due to external forces.
- Women believed that their barriers were due to internal forces.

Ultimately, this study determined that first-year college students would appreciate if their university provided additional resources to assist in their personal weight-management.

Methodology

A hypothesis was made that students who live on North Campus lead a healthier lifestyle overall due to the accessibility of the 24-hour fitness center. The means for collecting data from subjects was an online Qualtrics survey which was sent out via-email to a random sample of 200 students. The research asked: Are students who live off-campus or on North Campus healthier than the students who live on South Campus? The facilities and materials utilized for this study included University Recreation (UREC), Student Health Services to obtain more health/physical activity related information, and the Planning, Assessment, Research, and Quality (PARQ) office on campus to organize an IRB form. An extensive literature review completed to guide and compare with other research, as cited above.

Participants

The subjects for this study were undergraduate and graduate students who live in the residence halls on-campus, or off-campus housing at the UW-Stout. Participants ranged in age from 18–30 years of age, freshman to graduate level, 28 majors, and varying genders.

Survey

In order to gain IRB approval, Human Subjects training was required and documentation of completion needed to be submitted to the PARQ office. An IRB request was submitted, and approved for a random sample of 250 participants, of which 58 responses were recorded.

The online multiple-choice Qualtrics survey that was emailed to participants on April 14th, 2015 consisted of 12 questions. Questions asked about general demographic information such as age, student classification, major, and whether or not they lived on-campus. Other information obtained from the survey included information about transportation, meals, eating habits, and reasons for either participating or not participating in on-campus health, wellness, and fitness services. Follow-up reminders were sent out bi-weekly until May 7th, 2015.

Findings

The purpose of this study was to provide both current and prospective students with information regarding influences on overall physical activi-

ity at the University of Wisconsin- Stout. The results from this investigation will be provided to various student services and offices across campus in order to better support and assist students in maintaining physical health throughout their time at the university.

Participants in this study responded to questions about their age, gender, eating habits, commitment to physical activity, modes of transportation on campus, majors, and student classification.

Figure 1 represents the gender of participants in this investigation. Based on 57 responses, 37% identified as males, 60% as female, and 2% as transgender or gender non-conforming.

FIGURE 1.

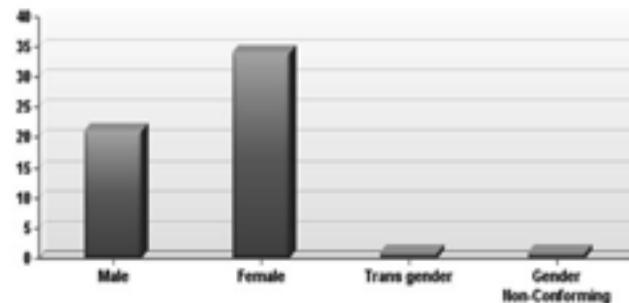


Figure 2 represents the percentage of students who identify within specific age groups. Based on 57 responses, 65%, the majority of participants in the study were between the ages of 18 and 21, 28% were between the ages of 22 and 24, 5% were between the ages of 25 and 29, and 2% of participants were over 30 years of age.

FIGURE 2.

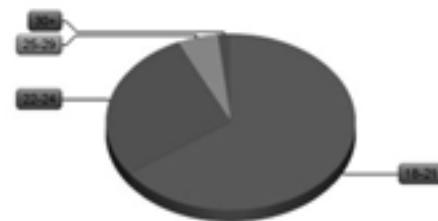


Figure 3 represents student residence at the University of Wisconsin – Stout. Based on 57 participant responses, 14% lived on north campus, 42% lived off-campus, and 44% lived on south campus. This small piece of information is important because the majority of results are based around these totals. The difference in the number of participants who reside in each

group ultimately goes against the originally stated hypothesis. It is difficult to determine whether or not students who live on north campus are in fact healthier overall in comparison to the others.

FIGURE 3.

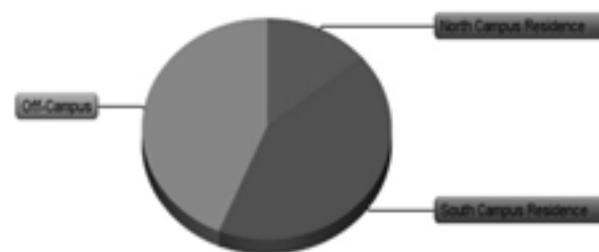


Figure 4 represents the percentage of student participation in health & wellness services on-campus based on 58 responses. Thirty-six of participants 62% in this study do not participate in health & wellness services on-campus while twenty-two students 38% do. Participation in health & wellness services includes utilization of the on-campus gyms, indoor swimming pool, intramurals/athletics, and group fitness.

FIGURE 4.



Figure 5 represents the number of hours spent per week participating in health, wellness, and fitness services at the University of Wisconsin- Stout. The results suggested that the majority 50% spent between three-to-five hours per week. Approximately 22% of subjects partook in zero-to-two hours of work out time at the health, wellness, and fitness facilities. Surprisingly, 17% of respondents participated in 12 or more hours of physical activity at the campus facilities and 11% spent six-to-eight hours. There were no respondents for the nine-to-eleven option.

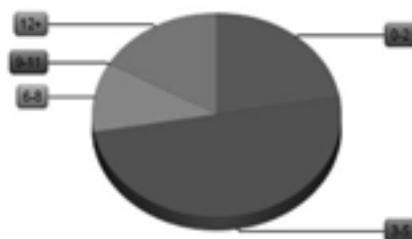
FIGURE 5.

Figure 6 represents the participants' reasons for working out on-campus. The results suggested that the majority of participants work out in order to feel better and also because they find the activity of working out calming and relaxing. This piece of information is interesting because their reasons for not working out – which can be found in figure 7 – suggest that the reason they do not work out can be attributed to a lack of a workout partner.

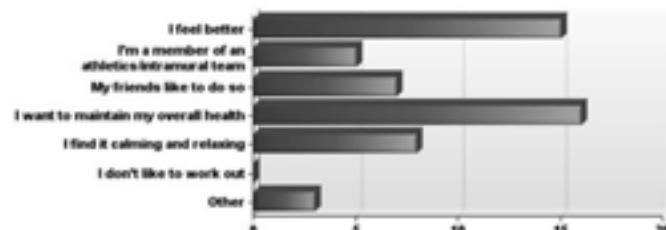
FIGURE 6.

Figure 7 represents the reasons for not working out on-campus. According to the 34 respondents for this question, the top three reasons for not working out on campus include having their own workout routine 44%, lack of a workout partner 41%, and schedule conflicts 32%.

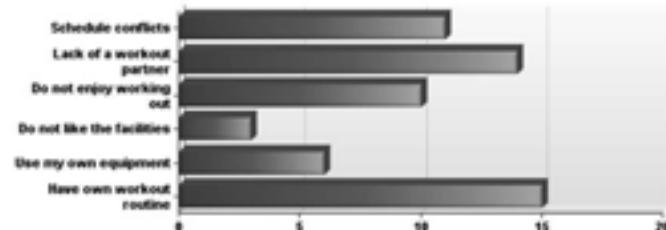
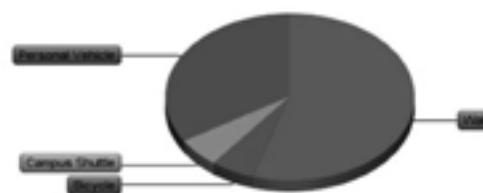
FIGURE 7.

Figure 8 represents the modes of transportation most commonly used by students at the University of Wisconsin – Stout. Unlike the other questions, this question had 53 responses meaning that 4 students opted out from responding. The majority of participants, 55%, primarily walk to and from their residence, 6% bike or utilize the shuttle service provided, and 18% of participants travel using their own personal vehicle.

FIGURE 8.

Discussion

The original hypothesis for this investigation suggested that students who lived on the University of Wisconsin – Stout's North Campus were more physically active than those students who lived on South Campus or outside of housing provided by the university. However, only eight of the 58 respondents lived on North Campus, yielding such a small sample that few conclusions could be drawn. The majority of students did not participate in the health and wellness services provided by the university.

According to the data collected from the study, 62% of students do not participate in the health & wellness services provided by the university. The data claims that the reason the participants do not partake in on-campus health & wellness services is due to primarily having their own work-out routine that they follow or due to the lack of a work-out partner. This response accounted for 41% of the participants. Another factor that influenced physical activity according to the study was schedule conflicts which accounted for 32% of participants. Identifying the reasons for those schedule conflicts (classes, work, involvement, etc.) may assist in providing and maintaining health, wellness, and fitness services on campus. Those who do workout on campus stated that the reasons they do are to maintain overall health 89% and to feel better 83%. This relationship between physical and emotional responses to physical activity and experience are supported by the study completed by Das and Evans (2014). Das and Evans's study took place at a Southern university, but the need for social engagement and interaction amongst students when it comes to participating in health, wellness, and fitness programs and overall physical activity has proven to be vital on our

mid-sized Midwestern campus as well. The emotional component to this study suggest that the reason students who do participate in physical activity, do so because they find it calming and relaxing 44%, and they also feel better about themselves overall. 83%

Twenty-two students who indicated that they did participate in physical activities on-campus, say they do so because they want to maintain overall health (16 students), they feel better (15 students), and they find the activities calm and relaxing (5 students).

Yilmaz's (2014) study of self-efficacy identified that students that have higher self-efficacy participated in sports/intramurals and paid attention to nutrition. Although this survey did not directly ask these questions, a limited number of students (5) indicated participation in athletics or intramural sports. However, sixteen of the twenty-two students that did participate in physical activities on campus indicated they did so because they wanted to maintain overall health suggesting these students might have a higher self-efficacy. Based on the data collected from this study, and Yilmaz's study, maintaining a positive outlook on student involvement and encouraging new students to participate in the UW-Stout "Pick One" campaign may increase overall self-efficacy in health and wellness. The purpose of this campaign is to encourage students to select at least one student organization, club, sports, etc. to be a part of. This study could encourage participation in health, wellness, and fitness courses as well as, promoting intramural sports and overall physical activity.

When analyzing the data for primary modes of transportation, only 6% reported using the free campus shuttle that is provided to students. This is quite a low number for a service that is used by many. This low percentage could be related to the season of which the survey was sent out. Since the survey was given in the spring semester, it would make sense that more students walked to and from campus. Had the survey been sent out in the winter, students might think to use the shuttle more or to use their personal vehicles more. Another factor to consider would be the walking distance from student parking to the health, wellness, and fitness facilities.

Limitation of Study

The main limitation for this study would be the time of year in which participants are being surveyed. For this study in particular, data was collected between the last few weeks of April 2015 through the third week of May. Though the random sample called for 250 students, less than one-fourth of respondents actually participated in the survey. If the survey had been distributed sooner, the possibility for an increase in responses would have been likely. However, given the amount of time that was provided, the data collected was sufficient.

While completing this study, another limitation that occurred was a

discrepancy with some of the response totals. There was an inconsistency in the total number of responses which signifies that students either opted out of certain questions for their own personal reasons, or the possibility of a user error. This also could lead to an assumption that students may or may not have accurately and truthfully responded to the survey.

Another limitation to this study was the overall representation of participants in relation to academic programs of study. Out of the 47 unique majors that UW-Stout offers on their campus, only 28 of them were represented by the student population during this study. The majority of the programs represented were affiliated with the College of Science, Technology, Engineering, and Mathematics, School of Hospitality Leadership, and the College of Education, Health, and Human Sciences. Having additional responses and being able to have a larger variety would have made a more effective comparison when evaluating the relationship between physical activity and academic majors.

Recommendations for Future Research

Future researchers could analyze the connection between the change of season and the overall culture of the campus. Would the percentages for the various modes of transportation differ had the participants been surveyed in the fall or winter? There is a chance that the behavioral response of an individual will be adjusted depending on the time of year it is. Is there a campus culture that supports bicycle use or participation in intramural activities or overall physical activity?

One could examine grade point average or finances, as well as an analysis of the annual peak hours for the various facilities across campus. Could these hours and overcrowding in the facilities play a role in the schedule conflicts that participants mentioned as a reason for not participating in health & wellness services on campus? Do the students spend a substantial amount of time studying which contributes to their inability to maintain and adhere to their physical activity regimen? Could it be that the students do not have enough time to participate in health, wellness, and fitness because they are spending their free time studying for classes?

Another aspect to consider is student employment and the effects that their work schedule may have on their physical activity. UW-Stout has a large array of student employment opportunities consisting of various titles, duties, and responsibilities on-campus and numerous off-campus. Depending on their weekly hours of employment, it could take away from time they would use to engage in physical activity.

Some options would be exploring food choices that students have and potentially reaching out to the university dietitian in order to identify choices students should be making when selecting their daily meals. University dining offers food options that can meet the needs of those who have

any dietary restrictions as well as food allergies such as vegetarian, vegan, gluten-free, as well as non-dairy products for those who might be lactose-intolerant. Monitoring participants alcohol and caloric intake, as well as their frequency of meals, could be helpful in identifying the impact nutrition can have on their physical activity at UW-Stout.

Asking participants to elaborate and identify the type of workouts they do for physical activity could possibly assist in helping University Recreation in determining the types of services they provide to students within their facilities. Participants in this study stated that the one reason they do not participate in health, wellness, and fitness services on campus is because they do not have a workout partner. Those who do participate in health, wellness, and fitness programs on campus also stated that they would work-out more if they had someone to work out with. Future researchers may want to suggest that there is some form of pairing or sign-up procedure for those who are looking for a workout partner if their data provides similar results in their study.

This could be valuable information for future research in this area. This type of research is unique and no study like this has been completed at UW-Stout.

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Exploring Job Qualifications for an Entry Level Apparel Position and Use of Technologies in Portfolio: Undergraduates' Perspectives

Kang Chu Thao¹

Senior, Apparel Design and Development

Advisor: Dr. Jongeun Rhee

Abstract

This study examines the applicability of augmented reality software and portfolio criteria ratings in developing professional portfolios for entry-level apparel design and technical design positions. This study addresses the different forms of showcasing and developing portfolios such as printed hard-copied portfolios and the benefits of each format. Viewpoints of undergraduate apparel design and development students are explored and the most important skills to showcase for an entry-level job in the apparel industry are determined. Undergraduates' viewpoints of augmented reality (AR) technology and its implications of being utilized in apparel portfolio were also explored. The study reviews past and current literature on portfolio development from other disciplines and relevant career skills sets. An online survey was sent to participants. The data collected showed the students' expectations of professional portfolios. It also projected the intention of utilizing augmented software in apparel portfolios.

Keywords: apparel job qualification, augmented reality, portfolio criteria

Exploring Job Qualifications for an Entry Level Apparel Position and Use of Technologies in Portfolio: Undergraduates' Perspectives

Portfolios are a form of showcasing student skill sets to prospective employers for internships and jobs. A portfolio "is an effective interviewing tool" (Lorenzo & Ittelson, 2005 p. 1). It is a physical piece of paper with creative or technical elements that displays skills from one's discipline, such as hand sketching in the apparel discipline. Most disciplines have adopted hard copy portfolios as the way to display one's skills. But with the help of technology an alternative form such as augmentative reality can be utilized to make portfolios more engaging between the employer and interviewee.

Time is a major factor in the apparel industry and with such little time, the problem of effectively marketing an individual's skillset and design aesthetics may become challenging. Therefore, the application of augmentative reality for college students or applicants who look for a career in the

apparel industry is an important topic to explore. There is a need for this research because of the evolving nature of integrating technology from personal life into one's career. According to Herro, Kiger, & Owens, "technologies permeate the lives of 21st century citizens. From smartphones to tablet computers, people use these devices to navigate persona, social, and career responsibilities." (2013, p.30) Therefore, by integrating augmentative reality technology with "career responsibilities," one can enhance the time and experience given to the prospective employers of their concepts and or ideas before they actually go in for an interview.

Technology is changing quickly and people in our era are adapting and integrating technology into their lives. This rapid change in technology has helped with altering how portfolios are presented. Lorenzo et al. states that, "A current movement in portfolio design is toward ePortfolios...student-made websites that serve as an online collection of the work that would traditionally go into print." (2005 p.2). Additionally, Lorenzo et al. demonstrates that digital portfolios have become an alternative option on enhancing 2-D portfolios. Rather than just providing a traditional hard copy portfolio, digital portfolios will allow a fast transmission of one's skillsets. It also shows that the applicant keeps up with changing technology.

The "goal of augmented reality is to add information and meaning to a real object or place. Unlike virtual reality, augmented reality does not create a simulation of reality. Instead, it takes a real object or space as the foundation and incorporates technologies that add contextual data to deepen a person's understanding." (Augmentative Reality Future, 2014, p1). In order to create and add contextual data to one's portfolio, the incorporation of direct links of videos, images and/or 3-D augmentative software such as Layar or Daqri, may allow for an interactive portfolio that does not require one to physically be present when an employer is reviewing his or her portfolio. The objective of this study is to test the effectiveness or ineffectiveness of 3-D augmented reality in comparison to 2-D digital portfolios, based on apparel undergraduates' perspective of apparel companies' portfolio criteria.

The significance of this research is to find any evidence that students can potentially benefit using augmented software in one's portfolio. Students will have the chance to learn what kind of portfolios they believe are effective or ineffective, amongst other students in the apparel discipline. Lastly, there is also little to no research upon this subject. If the study proceeds with evidence that argumentative reality in student portfolios is successful and effective process, academic curriculum development in college programs could be impacted. For example, course objectives may need to be change to provide (AR) technology for student's course work, ensuring they are provided with all beneficial tools to present the best portfolio they can.

Literature Review

Portfolios in many college disciplines are used to exhibit skill sets and showcase individual's work to prospective employers. In the design discipline, most portfolios contain visual demonstration of aesthetic and technical skills that are acquired to work in a specific design field. This research is to examine current portfolio practices within the technology era. It seeks to specifically identify key criteria that apparel undergrads use in portfolios and to determine whether augmentative reality (AR) usage affects these criteria.

Current literature focuses mainly on digitizing hard copy portfolios. Many critics have examined the use of an e-portfolio as an alternative to a hard copy portfolio. The downsides of technology and the instant gratification of portfolios is covered. Furthermore, curricula at the college level are reviewed and the tools in creating better portfolios has been implemented. When they are implemented there are also different types of digital media that one can use in accentuating their portfolios. Lastly, there is a little research upon this subject, resulting in a lack of literature addressing the apparel industry on using AR in apparel portfolios.

The importance of a portfolio. For most entry level jobs, providing a portfolio that can showcase their strength and maintain an employer's interest is crucial. One aspect in having a career-oriented portfolio is that it provides "samples that demonstrates to potential clients that you have the skills and experience to do the job." (Lathrop, 2011, p.165). In doing so, one can present their skills in an interesting or engaging way.

Additionally, with the evolving nature of technology, integrating personal life with the career life has become popular. Technology such as smartphones and tablet computers are used to combine personal, social, and career responsibilities, (Herro et al. 2013 p.32). As a student or interviewee, being able to access your skillsets on a smart phone and or tablet can be beneficial. It enables one not to be limited to just one type of media form and allows for fast access to proof of one's skillsets. Lathrop likewise has also correlated the importance of combining current business environment with using technology.

Both you and your potential client can be anywhere—in the office, at home, on the train commuting, or halfway around the world—and either of you may be using a desktop, laptop, tablet, or smartphone. Sending your writing samples electronically is convenient, and necessary, for both of you. Additionally, it shows your potential client that you are tech-savvy and haven't missed the digital revolution (2011 p.165). Lathrop insists that modern business practices have become instantaneous. The likeability of receiving work between employers and employees had become instant through digital occurrences (2011 p. 166). Her examination of electronic portfolios has also brought up the issue of going green. This can be an important point, as our society is moving towards an eco-friendly

environment. She suggested that electronic portfolios are portable and green for today's society. Lastly, the main benefit of an e-portfolio is that it will not be a burden to one's client or oneself (Lathrop, 2011p. 166).

Digital Portfolios

Technology is changing quickly and people of our era are adapting and integrating technology into their lives. This rapid change in technology has helped with altering how portfolios are presented. Formerly, when applying for a job, the applicant carried an envelope of samples to an in-person interview (Lathrop, 2011 p.165). There was no internet or smartphone, and access to multiple copies of their portfolio was not an option. Subsequently, the digital movement has flourished and, as Lathrop has established, designing e-portfolios has become an alternative to enhancing hard-copy portfolios (2011 p. 164). Rather than just having a traditional printed portfolio, a digital portfolio allows for a faster delivery of one's work samples.

Digital Media Form

The format of how to digitize a hardcopy portfolio can come in a variety of choices. According to Lathrop's study, in the medical field, writers use portable document format (PDF), which is an Adobe file format system (www.adobe.com) that dispenses condensed documents (2011p.166). Utilizing this software is so reliable that FDA recommends PDF format for reports and forms for regulatory submission (2011p.166). Its security and the free software offered are appealing for many individuals. It is also convenient when you send your portfolio to different companies; they are able to download the necessary application to view your portfolio free.

In the creative arts disciplines, Cobcroft, Towers, Smith & Bruns have found that the use of e-Portfolio systems accommodates learners who are digitally knowledgeable. These learners may already have multiple web presences, and are attracted to the do-it-yourself approach in creating and sharing creative products (2006, p. 24). This brings up the other media forms known as Web 2.0 technologies. Stephensen and Dillon's main focus was to examine the "affordances of these technologies, and propose design examples that make use of them in a tertiary creative arts context." (2013 p.164). Stephensen and Dillon's exploration in the Web 2.0 technology such as YouTube, Last FM and Facebook has been an available output for portfolios. Additionally, they found that e-Portfolios in theory enable access to "multimodal learning processes for postgraduate students. Beyond university study these portfolios can become dynamic Curriculum Vitae of artistic work that can be used to promote creative work and document engagement." (2013 p.175). In Stephensen and Dillon's study they have discovered that these third party providers provide the data space and have easy implementation tools for the user to create digital portfolios. It allows for creativity and a us-

er-friendly experience allowing one to simply want to document their works.

Augmentative Reality

The "goal of augmented reality is to add information and meaning to a real object or place" in order to create and add contextual data to one's portfolio (Augmentative Reality Future 2014). The incorporation of direct links to videos, images and/or 3-D augmentative software such as Layar or Daqri may add an edge to the applicant's portfolio. It could enable an interaction that allows the applicant to lead the examiners of their portfolio.

When is an augmented reality approach appropriate? We begin by looking at what users already do with objects in the real world. We then examine what functionality the computer can add. If the off-line version has important characteristics that cannot easily be duplicated with a standard mouse/keyboard/monitor style of interface, then it makes sense to explore an augmented reality approach. (Mackay 1998 p.8)

As Mackay discusses computers and its relations to augmented reality technology, he also elaborates on interactive paper. In recent years, even paper used to print hard copies can be linked directly with augment applications. By interlinking the physical paper with augmentative reality software, it can add diversity and allow handling of information and communication via a computer network (Makay 1998 p.8).

Although augmentative reality can be an exciting enhancement to digital portfolios, there are some downfalls. Augmented reality with technology can be challenging. A prime example is the act of erasing:

Erasing is a simple task that is easy for users to learn. Yet what does it mean to erase when the two are linked? What happens if marks are erased on paper and the computer version does not detect the change? Or similarly, what happens if the computer erases information, but it remains physically on the paper? Augmented reality applications merge electronic and physical objects; when the methods of interacting with each are not in sync, the result can be confusing. (Mackay 1998 p.8)

Even though technology errors can bring a negative light to augmentative reality, the currents markets are using this technology. From virtual stores to magazine interactions, it seems to be more beneficial in the current society then negatively impacting it. "The print-on-paper and the digital domains are both providing content to users. Content is being broadcast, but at the same time, completely personalized. Increasingly, new media versions of content, designed from the beginning for use in the digital world, are commanding equal or more resources than the print equivalents" (Perey, 2011 p.31).

Portfolios- Classroom Benefits and Challenges

In most academic disciplines, senior status undergraduates are

required to create a final portfolio to show samples of their works. Most schools have not integrated hard copy portfolios and digital portfolios even if the students are capable of creating an e-portfolio. One of the major issues is affordability. Willis and Wilkie's study on digital career portfolios focuses on a technology support student and faculty group. They explored the implementation of a small university adopting a digital portfolio curriculum requirement for their students (Willis 2009 p.73). One issue that this study ran into was the initial training of students on how to create effective e-portfolios. Although it is great to have an e-portfolio, if the student does not know how to use the tools to create it or is not taught adequately, it is of no use to them. On the other hand, Woodward and Nanlohy discovered that digital portfolios can enhance a student's understanding in career development guidelines, if they are taught how to execute the e-portfolio effectively.

Multimedia portfolio [is] a multifaceted tool, which can be used to fill several different purposes, but the most important is that it promotes learning among both student and teachers. This type of portfolio will be an important asset to school and individual as society heads into the Digital Age. (2004 p. 227)

Woodward further proves that multimedia portfolio can help create a valuable learning process for both students.

Performance of a student is important when speaking of portfolios. The work that is showcased is solely for the purpose of showing how that student can perform in their discipline. Ozgur and Kaya finds that classrooms should take advantage of e-portfolio in the assessment of the education process; this is significant when the number of students are geographically far from the institution (2011, p.297). Distance learning students are among the many students that rely on their portfolio when being evaluated. Learning from afar their performance is solely evaluated through what they show in their portfolio.

Sung, Chang, Yu, & Chang proposes that digital teaching portfolios are an effective tool for teacher learning and professional development, but it lacks in experimental evidence. Sung et al. also "proposed the design of a structured digital portfolio equipped with multiple aids (e.g. self-assessment, peer assessment, discussion and journal writing) for the professional development of teachers." (Sung et al. 2009 p.375).

Academic Curriculum Changes

Academic curriculum developments in college programs are rapidly changing due to the technology advancements. Sung et al. also experimented and reflected the proficiency of development in digital teaching portfolios (2009, p.375). They studied forty-four substitute teachers that executed a web-based portfolio system. They found that there were moderate levels of reflection in of each teacher's digital journals. One-third of them showed the

highest level of reflection. Changing from written to digital media aided in the level of reflection some of the teachers previously had. Hence, the above findings represent "good evidence that digital portfolios with multiple aids are beneficial to teacher reflection and professional development" (2009, p. 375). This finding elaborates on how important using a digital platform is and how it can alter the effectiveness of how one presents ideas and or reflects on their work.

Moreover, Willis and Wilkie's study introduced a digital portfolio project that explored usage of digital portfolios in an academic setting. In their study, a senior seminar class was tested and had their portfolios assessed. As a result the students and faculty selected digital portfolios as more favorable to use. The "portfolios have provided [their] students with applied, real-world career connections...The students develop team building, project management, and technical research skills, and apply knowledge derived from learned course concepts" (2009 p.78).

Throughout the literatures, most of the finding showed positive reinforcement in utilizing digital aspects into portfolios. Undergrad course objectives may need to be change so the technology can be applied to the student's course work. In doing so, the students will also have the ability to learn and create an interactive portfolio. As stated earlier in Willis and Wilkie, the initiation of intergrading digital portfolios already is a good concept and can enhance the transitions for students going from undergraduate studies to their career lives. (2009, p.79)

Objective

The objective of this study is to investigate apparel students' perspectives of:

1. Job qualifications for an entry level apparel position.
2. Important skill sets for their portfolios.
3. The applicability of augmented reality in apparel portfolios.

Methods

The sample consist of 19 students in current apparel portfolio classes and or apparel classes that teach portfolio skills. A questionnaire was distributed via Qualtrics (an online research suite for collecting data). The questionnaire consists of criteria based on past literature of important skill sets that students look at when they create a portfolio for hire, as well as skills that students or employers think are valid to put on portfolio pages. There are also demographic questions in this survey to validate the correct department and/or student in the usages of apparel portfolios. Then a sample of a 3-D augmentative reality application was tested to see the effects it has on the student's portfolio criteria.

Participants

Undergraduate students, (23 females, 1 male) who were enrolled in the apparel design and development bachelor degree program at University of Wisconsin-Stout were recruited via email. Out of the 24 undergraduates 25% of them completed an internship and/or a co-op; 35% of the participants were 18 years of age; 65% were 19-26 years and the mean age was 20.57 years.

Materials and Procedure

A questionnaire was distributed via Qualtrics. The questionnaire consists of job qualification and portfolio criteria, based on past literature of important skill sets that students from a wide range of disciplines believe were important. After reading the literature, a list was compiled of the skills that were reviewed in each study. Then, the list was narrowed down to the top 24 skills that were repeated amongst the studies: 1) How important are the following when you apply for an entry-level apparel position? (e.g., Verbal Communication, Enthusiasm and motivation, Internship experiences 2) How important are the following attributes in your portfolio when you apply for an entry level apparel position? (e.g., Creative skills, Hand drawn skills, Story Development).

Demographics were also asked to validate the student in the usages of apparel portfolios. Participants responded to a Likert scale. The measurements were 1= Least important 3=Neutral and 5= Most Important. The two questions that utilize the scale were questions 1 and 5.

Results

The first category review was important qualifications and skill sets. 96% of the respondents rated time management as the top skill set to acquire an entry level apparel position. Respondents were asked, "what is the most important skill to get a job?" The top two criteria were Apparel Industry Experience (26%), Communication (17%). Only 61 % of respondents rated portfolio as very important.

TABLE I.
Ratings Of Important Skills Required For Entry-Level Apparel Position

Criteria	Not Very Important	Neutral	Very Important	Mean	
	1	2	3	4	5
Grade Point Average	0	4	6	11	3 3.54
References	0	1	3	11	9 4.17
Written Communication Skills	0	2	2	9	11 4.21
Basic Computer Skills Including Ms Word And Excel	0	0	5	8	11 4.25
Bachelor's Degree In Fashion	0	0	3	11	10 4.29
Leadership Skills	0	0	5	6	13 4.33

Design Software Skills	0	0	4	7	13	4.38
Internship Experiences	0	1	3	5	15	4.42
Analytical Skills	0	0	1	12	11	4.42
Portfolios	0	1	2	7	14	4.42
Personal Appearance/Demeanor	0	0	3	8	13	4.42
Interpersonal Skills	0	0	3	7	14	4.46
Organization Skills	0	1	1	7	15	4.5
Knowledge Of Apparel Construction/Pattern Making	0	0	2	8	14	4.5
Creative Ability	0	0	2	6	16	4.58
Personality	0	0	1	7	16	4.63
Enthusiasm And Motivation	0	0	0	5	19	4.79
Problem Solving Skills	0	0	0	5	19	4.79
Verbal Communication	0	0	0	3	21	4.88
Teamwork Skills	0	0	0	3	21	4.88
Time Management	0	0	0	1	22	4.92

The second category was important skills in portfolio,

TABLE 2.
Ratings Of Important Portfolio Skills Required For Entry-Level Apparel Position

Criteria	1	2	3	4	5	Mean
Creative Skills	0	0	1	6	17	4.67
Hand Drawn Skills	0	0	6	8	10	4.17
Story Development	0	1	2	14	7	4.13
Cad Skills	0	0	3	11	10	4.29
Attention To Details	0	0	0	8	16	4.67
Knowledge Of Apparel Construction	0	1	0	7	16	4.58
Knowledge Of Pattern Making	0	0	1	10	13	4.5
Neatness	0	0	1	9	14	4.54
Aesthetics	0	0	2	8	14	4.5
Knowledge Of Grading And Marker Making	1	1	2	11	9	4.08
Market Research Skills	0	0	2	8	14	4.5
Knowledge Of Textiles	0	1	0	9	14	4.5
Knowledge Of Fit	0	0	2	7	15	4.54
Knowledge Of Merchandising	1	1	5	12	5	3.79
Knowledge Of Production	0	1	5	8	10	4.13
Knowledge Of Technical Packets	0	0	2	9	13	4.46
Accurate Technical Information	0	0	1	5	18	4.71

2. 78 % of the respondents rated accurate technical information as most important. When asked "what is the most important skill to demonstrate in your portfolio?" the respondents rated creative skill (21%) and knowledge of construction (17%) as most important.

In the digital portfolio section 8 % of the respondents had a digital portfolio; 92 % of the respondents intended to create a digital portfolio before graduating; 63% of respondents stated that having a digital portfolio would increase accessibility to potential employers and be sustainable. In the augmentative reality application section, 4% of the respondents had seen

3D- augmented reality applied to a portfolio. Moreover, 42% intend to apply augmented reality to their portfolio before graduating.

Discussion/ Implications

Experience was the most important skillset to get a job. It is consistent with previous research in textile sourcing (Muhammad & Ha-Brookshire, 2010 p 52). Experience was an also important hiring criteria (Sproles & Warne, 1987 p 148). Digital portfolio has gained in popularity and enhanced career opportunities in other design disciplines (Willis, 2009 p. 74). Most respondents were not aware of 3-D augmented reality software. The allow technology usage for new product development firms are low compared to the technological tools available (Barczak and Sultan, 2006 p. 608). Augmented reality is still advanced for many of the respondents at this time. AR is a starting point for apparel students to approach the advancement of portfolio technology within the apparel industry.

The study conducted had some limitations. The first limitation is the sample size. Out of the 100 e-mails sent to the sample population, only a sample size of 19 respondents' data was collected. There was also a homogeneous sample population, mainly female undergraduates (95% of data) responded. The implication of utilizing of augmented reality in the classrooms and apparel industry is far from the current reality. Many students are not aware of 3-D augmented reality software. It would also be costly to implement in the classrooms. Therefore, at this time augmented reality is not an effective tool for apparel students to be utilized in their portfolio technology.

According to the respondents' portfolios was not rated as the top criteria for getting a job. This data raises another limitation, without data from the apparel industry, there is no comparable data. There is also no direct correlation as to whether industry personnel also would rate the criteria the same.

Although there are limitations to the data gathered, the study reinforces the integration between digital portfolios and hard copy portfolios. This concept is beneficial to students. Digital portfolios are currently accessible to students, but there is still a high percentage of the respondents who do not utilize the media.

This research will be beneficial for future students, academics and employers. This research enabled undergraduates to learn about current technology not being utilized in creating apparel portfolios. It also starts the discussion of students' preferences in creating portfolios and what their viewpoints are. This research could possibly impact academic curriculum development in college programs. This study proceeds with evidence that argumentative reality is of interest to the current participants. The 58% that selected not to use AR were regarding not having access to the technology. Hence, if the undergraduates had access to the software or programs, AR can

be placed into portfolio courses and be a new tool for students to use when creating portfolios.

Future Research Questions

Some future questions that can be further discussed are 1) What are the most important skillsets to hire in apparel industry from employers' perspectives? 2) How will technologies (e.g. augmented reality) affect students' portfolio and employment in apparel industry? The importance of exploring these questions can impact the validity of the subject's opinion of what criteria they consider to be most important to the industry. The impact of these questions can help improve future research for students and employers. Students and the apparel industry will then be able to compare and contrast, and then validate each other's perspective of how to improve presenting skills in portfolios, and to use a portfolio effectively as a student and professional in the hiring procedure. The effects of technologies in portfolio and employment in the apparel industry can impact the research by enabling the prospective hires to know what technology is available in the apparel industry.

Limitation of Current Studies

Limited research has been conducted on job qualifications, portfolio, and advanced technologies used in portfolio within the apparel design discipline. This study will provide implications for educators and apparel course curricula by keeping up to date with advanced technologies (e.g., Augmented Reality) in portfolio development.

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Higher Education and Student Debt: How Structural Flaws Affect Rational Investment

Hillary Hoffman

Senior, Applied Social Science

Advisor: Dr. Nels Paulson, Associate Professor of Sociology

Abstract

Overwhelming debt for college students is an increasing phenomenon. When one plans to make a rational investment into their future through higher education, one simultaneously plans for the unavoidable debt load that accompanies the pursuit of academic knowledge. While tuition rates are on the rise, some scholars look to the financial aptitude of students as a key variable in understanding the accumulation of debt by college graduates. Various studies have been conducted to understand how fiscal knowledge affects the debt load of students. The studies, including those of Javine (2013) and Heckman and Grable (2011), have consistently determined that financial know-how does not affect loan usage or debt load. This study, conducted at the University of Wisconsin-Stout through a survey of 1,000 student participants, arrives at a similar conclusion. The variables drawn from the survey, including whether the respondent took a financial planning class, dependency status, past financial experiences, and GPA, had no correlation with the amount of student debt each participant had accumulated. However, analysis of historical and economic constructs has been included to give a better understanding of the financial dilemmas at hand. With the collective information and research, the issue of growing student debt can be looked at in a holistic and interdisciplinary way.

Keywords: financial knowledge, student debt, higher education, state funding

Introduction

Individuals attending higher education programs are making a rational choice to invest in their future, but graduating from college debt-free is becoming an unattainable goal for most students. Over two-thirds of college students graduate with an accumulated debt of over \$20,000 (Javine, 2013, p. 368). Trying to improve one's future in the job market through education is often seen as a wise investment, but students are suffering large debt burdens that cause financial instability and insecurity for years after they receive their diploma. Although the rising cost of tuition plays a role in the unavoidable student debt issue, many scholars have looked at students' comprehension of financial planning as a main factor in rising student loan debt. There is a

common theory that comprehensive financial understanding and student debt have an inverse relationship: the more a student understands personal finance, the less likely that student will be to utilize burdensome loans and compile exuberant amounts of debt (Avard et al., 2005). In order to understand the issue at hand, the entire higher education system must be looked at. Research was conducted at the University of Wisconsin-Stout to test that inverse relationship of incompetence in personal finance and student debt load and to bring forth a new and relevant conversation. Students were surveyed about their debt load and financial knowledge. Along with the surveys, financial information from the university was gathered to broaden the scope of this debt issue. The students' financial knowledge, tuition rates, historical context of the university, and other economic factors playing a role in university affairs must be considered in the topic of growing student debt.

Literature Review

It is no secret that students coming from middle class families take out student loans to obtain a bachelor's degree even if they are not attending an Ivy League institute. More students, and their parents, are utilizing student loans to invest in a four-year degree, which has now become what some call a prerequisite for even a modest chance at economic success. The students and families putting money towards higher education are making the rational decision to purchase an education that gives them the opportunity to rise in socioeconomic status, gaining access to future development and growth. While costs for these investment opportunities have increased, we must wonder if it is enough to cause two-thirds of college graduates to come out of school with a student loan debt of roughly \$24,000 (Javine, 2013, p. 368), and enough to leave approximately 37 million students in a collective debt that surpasses \$1 trillion (Cohen-Kurzrock, 2015, p. 1199). It must be noted that the act of investing in higher education with loans is generally seen as a rational choice as it leads to high returns through increased job opportunities. The current problem with student debt, however, is the rising amount of debt accumulated and the proportion of students that default on their loans after graduation, which in 2012 was around 12% nationally for four year colleges (Federal, 2015). We can be sure that something is askew, but what is causing this concerning usage of student loans? Many scholars have pointed out a lack of financial planning skills on the students' part; there is a theory that current students are inept when dealing with monetary issues. They have not been advised on issues of personal investments and finances, and therefore continue to take out loans, despite the potential risks. Considering financial incompetence as a lead cause in the trend of rising student debt has led scholars to examine other variables that may affect a student's usage of loans, such as their GPA, dependency status, year in school, and gender.

Even though the price of attending college is increasing faster than

the average income and ascending two to three times the inflation rate (CNBC, 2010), scholars have taken financial knowledge as a key factor in college student's monetary activities and personal investment trends. Regardless of the fact that attending a four-year institution today costs almost twice as much as it did ten years ago, the general scholarly theory explained within the literature is that the more financially competent a student is, the better the decisions they make, and the less debt will be accumulated during college. Javine (2013) argues that there is plenty of evidence saying that students lack satisfactory financial knowledge. Avard et al. (2005) arrives at a similar conclusion, stating that the results of their surveys "validate the fact that recent high school graduates are not knowledgeable about everyday financial matters", leading to financially ill-prepared college students (p. 326). The area of finance that students are most uncomfortable with seemed to be credit. Late high school and early college students were not familiar with how credit worked. This led the academic researchers to be worried about student loan usage (Avard et al., 2005).

The researchers began with the general agreement that the more financial knowledge a student has the less debt they will accumulate while in school. Javine (2013) claimed that fiscal responsibility on behalf of students would encourage safe financial practices (p. 369). Avard et al. (2005) states that the new generation of college graduates are "flunking personal finance" (p. 322), and are therefore emerging from their institutes with debt loads much larger than their starting salaries can afford. While the students are trying to invest in a future full of career opportunities, they find themselves crushed by a debt that hinders any chance of upward economic mobility. The researchers shared a common theory that the students' lack of knowledge in financial matters will lead to financial downfall after they get their diploma. Financial aptitude was predicted to be the variable that directly impacted the student's ability to financially plan their education (Heckman et al., 2011, p. 52).

Many of the researchers gathered data on financial knowledge by presenting financial aptitude tests to high school seniors and early college students. Some researchers stopped there; other researchers went on to gather the loan and financial information of the college students that participated in the tests. Most of the research was conducted through email surveys on college campuses, although the research that strictly focused on seniors in high school or freshmen in college was usually done in-person. The researchers would then analyze the data to see if having financial knowledge correlated with the college student's debt load. Although most of the scholars included in this literature review began with the working thesis that financial aptitude had an inverse relationship with student debt load, the tables turned once the data analysis had been finalized. All of the literature collected came to a startling conclusion that financial knowledge most likely does not affect

the debt load of students. Financial knowledge was not significant when looking at students' monetary behavior; being financially competent had minimal effect on the amount of tuition debt a student carried (Borden et al., 2007, p. 36).

Since financial knowledge was not significant in determining students' debt loads, the scholars had to consider other variables in their research. However, the variables included in the research had similar results to that of financial knowledge. For example, it was theorized that the students who were more financially independent should be better able to manage their finances and keep track of their funds (Heckman et al., 2011, p. 52). The correlation between student monetary practices and dependency status turned out to be insignificant. Gender was looked at as a possible variable that could have an effect on students' loan usage, but it did not have an impact on financial knowledge or loan usage (Avard et al., 2005). Yoon (2012), who conducted a national study on Masters of Social Work students' attitudes toward debt, found that "...the educational debt amount does not have any significant relationship with race, gender, parent's income level, or mother's or father's educational attainment" (p. 116). Yoon goes on to state that "... participants of this study indicated no significant association between educational loan amounts and their GPA" (2012, p. 118). The only correlation that was significant throughout the research was that more years in school coincided with more debt, pointing to the idea that the possible routes of financing a higher education, not the students' ability to invest wisely, are flawed.

Financial competence, along with variables such as gender, dependency status, and taking financial courses, had no correlation with student debt load. This total lack of correlation between the independent variables and student debt led the researchers in a new direction. As Javine (2013) states, "... students are taking higher levels of loans even when they have a good understanding of financial topics, perhaps because they cannot afford to finance their education any other way" (p. 377). Researchers took the lack of correlation and interpreted it by saying education was just too expensive. Perna (2008) supplements this point by including research on high school students' attitude toward debt, noting that "... the likelihood of applying to a university increased with the students' tolerance for debt even after controlling for educational achievement, social class, ethnicity, age, and mother's educational attainment" (p. 590). Regardless of knowledge on finance and investing, students have to take out loans to get through college. All of the research found began and ended the same, leading me to believe that this data is valid and significant.

Methods

The research began with a simple preliminary question: do University of Wisconsin-Stout students fully understand the risks of their financial invest-

ments toward education? The initial hypothesis was that students who had a higher level of financial competence would have less debt through student loans. Perhaps the students that were more financially proficient had found ways to avoid taking out large student loans that would collect a substantial amount of interest. Victoria Javine's (2013) study on college students' financial knowledge and debt load was the primary guiding resource throughout the data collection process due to the similar demographics and size between the university she studied and University of Wisconsin-Stout. Her survey, which she included in her final research report, was used as a guideline for the data-collection process. While Javine ended up rejecting her hypothesis, this research wanted to test Javine's validity and discover if the data collected from University of Wisconsin-Stout would follow the same trend.

Variables not found in Javine's research were added to this study as additional predictors of debt load of students. The dependency status of a student was an independent variable. The idea was that students independent from their parents may be more financially wary of loans because they have no parental safety net. The participants' various years in school were a potential predictor of debt. It was hypothesized that more experienced students would have a greater sense of financial competence, and therefore make different investment choices than younger, less experienced students. Gender was an independent variable, although it was not predicted to have any effect on debt load. If the participant had a personal finance course in high school or college was an independent variable. It was theorized that courses in finance would lead to better understanding of loans and personal investment. The participants' majors were recorded to try to decipher who was more prone to taking risky loans. The number of credits being taken and cumulative GPA was asked. The hypothesis was that students doing well in school may also do well in real-world issues, such as personal investment. All variables were designed to decipher who was more knowledgeable fiscally, and if it mattered when it came to student loans.

The survey used in data collection was created using Qualtrics and distributed through email. The survey consisted of 20 questions including demographics, multiple choice, and true or false. There were a total of seven demographic questions. Demographics included gender, year in school, dependency status, if they were first generation college students, and their cumulative GPA. The other 13 questions focused strictly on the participant's finances and their financial knowledge. Some of the questions asked the participant specifics such as what type of financial aid they had, how much debt they accumulated, and if they made payments on their loans. Other questions were more test-like, such as asking the respondents if they knew exactly what the FAFSA was, how much it costs to attend University of Wisconsin-Stout, and which aid options had compounding interest. There were 1,000 random recipients assigned to the survey through a university database. The survey

was emailed to all recipients on one occasion.

There were 42 respondents to the survey (4.2% response rate). However, the sample generally reflected the overall distributions of students at UW-Stout. Freshman composed 21.4% of the respondents while 26.2% were sophomore, 23.8% were juniors, 14.3% were seniors, and another 14.3% were five-year students. Males consisted of 40.5% of the participants, while females made up the other 59.5%. Of all respondents, 33.3% did not have a job. Of the remaining 66.7%, only 9.5% worked over 25 hours. According to the data, 54.8% of the participants had never had a personal finance course, and of the remaining 45.2% that did, only 7.2% had their financial course in college. It was found that 57.1% of students did not make payments on their loans. The students were spread out among majors, with engineering having the largest share of the participants at 26.2%. Of the respondents, 57.1% were taking between 12 and 15 credits, and 33.3% were taking between 16 and 20 credits. Regarding GPA, 40.5% of participants ranged between 3.0 and 3.5, while 38.1% claimed a GPA between 3.6 and 4.0. Only 4.8% of respondents had a GPA at or below 2.5. The independent students made up 31% of the data, while 61.9% were dependent and 7.1% were unsure of their dependency status. Notably, 85.7% said that they wished they had been provided with more financial knowledge prior to entering college.

The participants were asked to select all types of aid they acquired to help pay for school. It was reported that 7.14% had no aid or loans, 59.52% used Stafford Subsidized Loans, 64.28% used Stafford Unsubsidized Loans, 33.33% had private loans, 57.14% had a scholarship at some point in time, 35.71% participated in the Federal Work Study program, and 2.38% did not know what kind of aid they had used. Of the respondents, 26.19% said that they have no student debt, while 4.76% say their debt range is between \$1 and \$999, another 4.76% say their debt range is between \$1,000 and \$4,999, while 30.95% claim debt between \$5,000 and \$9,999. 4.76% say they owe between \$10,000 and \$19,999, 23.8% have debt ranging from \$20,000 to \$49,999, and 4.76% have debt of over \$50,000.

Of the students with scholarships, 66.67% of them had both a Stafford Subsidized Loan and a Stafford Unsubsidized Loan. 13.63% of scholarship students reported having no other aid, while the rest had some combination of subsidized or unsubsidized loans, work study, Perkins grant, or private loans.

Results

When running bivariate correlations in SPSS there was a significant positive correlation (0.322) between year in school and amount owed in loans at a 0.05 level. The longer a person was in school, the more debt they would probably have. There was a significant negative correlation (-.353) between being a first generation student and amount of debt a student had

in loans at a 0.05 level. Having parents that went to college affected the amount of money a student borrowed through loans. No significant relationship existed between the participants' GPA and how much debt they had. Dependency status of the respondent and their debt load had no significant correlation. There was a very weak positive correlation (0.163) between how well a person believes they understand financing a college education and how much they currently owe. However, the weak correlation was not statistically significant. There was almost no correlation between having a class that taught personal finance or investment and the amount the student owed in student loans (-.019), and the minuscule correlation was not significant (0.905). Having knowledge about how much interest loans accumulate was not a significant factor in how much debt a student had. There was almost no correlation (0.058) between whether the student knew how much debt they had accumulated and their total debt load; this was not statistically significant.

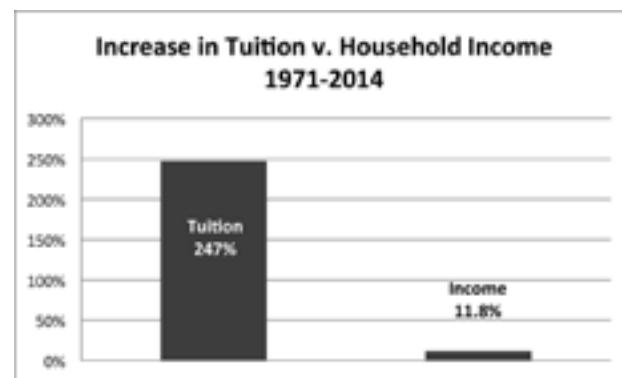
Discussion

Similar to the previous research conducted by scholars mentioned in the literature review, there were no significant links to financial knowledge, or the other independent variables, and the amount of debt students had via student loans. The only variables that seemed to be connected to student debt were the number of years they were in college and if they were a first generation student. It is apparent that the longer a person is in college the more expenses they accumulate, and therefore more debt. The most essential piece of information for this research is that first generation students had more debt compared to students who had parents that received higher education. The first assumption may be that the correlation exists because the first generation students do not have parents that experienced college or the financial challenges of college - leaving the students with little financial competence. However, because financial knowledge was not a significant factor in debt, perhaps the first generation students had more debt because they simply could not afford to pay for it. Students with college-educated parents may have access to more funds due to their parent's higher education and presumably higher paying jobs compared to the parents that did not acquire a college degree. According to these data, it is not a matter of knowledge, but a matter of the pocket.

Being that there was no correlation between financial knowledge and student loan debt, it is necessary to look further into the situation. If student monetary know-how is not the cause of the rising student debts, as was predicted by multiple scholars, then what is? The debt from student loans in the U.S. is nearly one trillion dollars (Price, 2010). Looking deeper into this issue is an essential task that must occur before college students can no longer carry the heavy burdens of large tuition debt. Considering that asking the

students about their financial knowledge and debt load only led to very basic and rudimentary answers (financial knowledge plays no role in how much a student will owe in debt), it seemed necessary to take a different approach and search elsewhere for answers. The other parties in these college finance issues are the colleges themselves. To work toward solving the student debt issue, we must better understand the topic of college finance by studying a state university and looking for trends in their finances that may lead to student debt.

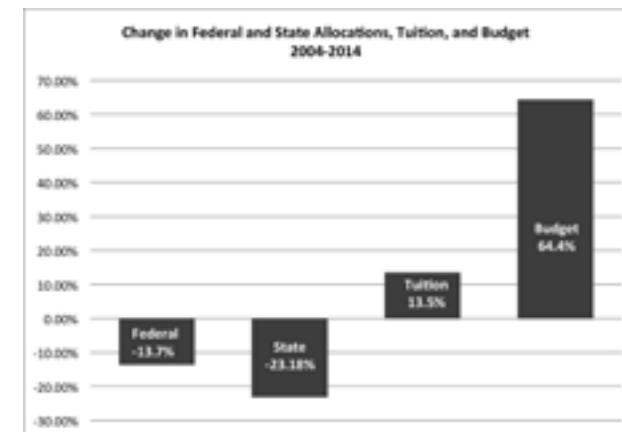
The University of Wisconsin-Stout offers a template to look at trends of college budgets, tuition, and state and federal government allocations to the institutions. Although Stout is not identical to other campuses in the University of Wisconsin system, it can act as a rough guideline to understand the full picture of higher education finances. From the archives of Stout Fact Books it can be noted that tuition in 1971 was roughly \$438 (University, 1971). Using the Consumer Price Index (CPI) to adjust for inflation, this translates to \$2,622 in 2014 dollars. Current tuition is around \$9,096, according to the University of Wisconsin-Stout website. Those numbers mean that tuition has risen around 247% in real terms the last 43 years. But those numbers are meaningless without something to compare them to. The median household income in 1971 was \$7,805 (United States Census Bureau, 2015). CPI transforms this number into \$45,641 in 2014 dollars. Since median income in 2014 was \$51,017, we can conclude that median household income in the U.S. has only increased by around 11.8% in the last 43 years. An 11.8% increase in income and 247% increase in tuition do not work well together. The price of tuition is rising much faster than income can rise. This may lead students into debt because their parents are unable to support the rising costs of education with their relatively fixed income.



We can look at more recent fiscal matters to create a better understanding of the rising student debt load in the U.S. According to the University of Wisconsin-Stout Fact Book (2005, p. 64), the state government allocated \$34.4 million to UW-Stout in 2004, while it allocated \$33.5 to

UW-Stout in 2014 (University, 2014, p. 77). The numbers look similar but when inflation is factored in, the CPI calculates that the \$34.4 million in 2004 was the equivalent to \$43.61 million in 2014 dollars. This means that in 10 years state funding of University of Wisconsin-Stout has decreased by 23.18% in real terms. A similar trend can be seen in the federal allocations. University of Wisconsin-Stout received \$4.89 million in 2004 from the federal government, which is \$6.199 million in 2014 dollars (University, 2005, p. 64). In 2014 the federal government assigned \$5.35 million to Stout (University, 2014, p. 77). This means that there has been a decline in federal funding by 13.7% in the last 10 years. State and federal funding of University of Wisconsin-Stout have both gone down a significant amount in the last 10 years. While the state and federal governments are simultaneously pulling their resources from the investment of higher education, the students are being forced to utilize once unnecessary loans in hopes of future economic mobility and security. However, the cost of this essential higher education is weighing too heavily on students, creating unsustainable amounts of student debt.

Tuition for full-time University of Wisconsin-Stout students in 2004 was around \$6,300, which is equal to \$7,987 2014 dollars (University, 2005, p. 71). Current 2014 tuition is \$9,069. Tuition has increased around 13.5% in the last 10 years. To get a more precise picture of what is going on, we will look at the changes in the University of Wisconsin-Stout budget over the last 10 years. The University of Wisconsin-Stout budget for 2004 was \$100.8 million (Sorenson, 2004), which is \$127.79 million in 2014 dollars. The 2014 budget was \$210.12 million (University, 2014, p. 77), meaning that between 2004 and 2014 there was a 64.4% increase in the overall budget at Stout.



We have found that lack of financial knowledge among college students is not a significant factor in the increasing student loan debt. Re-

search from Javine (2013), Avard et al. (2005), Heckman and Grable (2011), Borden et al. (2007), and many others working on this specific topic back this conclusion. It is time to look in a new direction to find the real root of the debt crisis, starting with the institutions. University of Wisconsin-Stout has increased tuition by 13.5% in the last 10 years, accompanied by rapidly decreasing federal and state aid and an institute budget that has risen 64.4%. Funds need to fluctuate with the ups and downs of the economy, but to keep pushing tuition up to cover the lack of funds colleges experience can only work for so long. The slow rise of income cannot keep up with skyrocketing educational costs. With a college education becoming a prerequisite for a successful life (Price, 2010), tuition must stop its upward climb before students and their parents can no longer afford that imperative phase in life.

Limitations

Although this research did reflect the end results of larger studies, the small sample size can be seen as a limitation in this study. The response rate was only 4.2%, and even though the small response rate is normal in this topic (Javine, 2013), having more respondents would have helped validate the research. In future studies, questions asking the respondents about their income or their parent's income should be included. This would have helped to confirm or deny the idea that a college education has become too expensive. It then would have been possible to gauge if the students with access to more monetary funds have less student debt. Getting access to institute funding information was a limitation. The archives proved helpful, but they did not have all the necessary information. When asked for funding information of the university, multiple administration personnel were quick to state that they knew nothing of the records and did not know where to find them. Many figures from the budget desired for this research seemed to be unobtainable, which hindered the overall analysis of the institute.

Conclusion

Many scholars have looked into the growing debt load of college students, hypothesizing that the students' financial illiteracy is causing mass loan usage that leads to overwhelming debt. However, through their research, and the research done at University of Wisconsin-Stout, it can be concluded that financial knowledge does not seem to be a factor in the amount a student has in debt. This does not seem to be a problem of lack of education in personal finance, but an issue of not having any good options. With the growing costs of higher education and the relatively fixed income, students and their parents can no longer pay for college tuition. They are depending on student loans to get them through the vital years at the university.

Rather than looking to students to try solving the increasing debt load, political pundits, researchers, and everyday citizens must begin to look

at the lack of financial support for universities and the school system itself. The fact that there is a nearly trillion dollar debt held by American college students means that there is a flaw in the system. Since federal and state allocations to University of Wisconsin-Stout have declined, tuition has to rise to foot the expenses of the university. Scarcity of money is not an uncommon issue in our economic landscape; universities must acknowledge that they cannot keep asking for more when there is no more to give. While students are struggling to pay their tuition, university budgets cannot continue to increase. Although professors need to get their paychecks and the facilities needs to keep their lights on, the institutes must understand that students are being crushed by their financial burdens. Students want their education and want to be a part of their great institute, but they also want to be free from the burdens of debt after graduation so they can focus on utilizing the tools that the university has given them.

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Gender Disparities Among Tanzanian Public Schools

Esuvat Mollel¹

Advisor: Dr. Anne Kelly Hoel, College of Management

Abstract

This research analyzed Tanzania's education system and sought to find if there were a disproportionate number of males to females who continued on from primary school to secondary school. In order to gather data on this subject, research of academic preparation studies on public schools in Tanzania was analyzed. The results indicated that there was a minor disparity in the rate of males to females who successfully completed primary schooling and moved on to secondary school. However, a more prominent disparity existed in the ratio of males and females who completed secondary school, with males completing at a higher rate than females. The quality of, and access to education were the factors that contributed to this disparity. This research was needed to provide a better understanding of the academic preparation level of public school students in Tanzania so that solutions could be created to address the issues of equality and access to the education system. The preliminary research question was whether a disparity exists between girls and boys in regards to who continues on to go to high school from primary school in Tanzania.

Keywords: primary school, secondary school, Tanzania, education, gender disparity

Introduction

Tanzania's education system starts with seven years of primary school followed by four years of secondary school. From there a two year certificate program and a three year university program are available options for students.

This research study seeks to determine if a gender disparity exists among students who continue on to secondary school and if an academic preparation program is needed to help bridge such inequalities. Understanding the academic preparation level of public school students in Tanzania is essential to providing effective solutions to improve the education system. Research specific to Tanzania and the rate of males to females who continue on to secondary school has not been conducted. This research will provide needed data analysis on the number of students that finish primary school

and continue on to secondary school while taking into consideration the ratio of males to females. The study will also offer a perspective as to what obstacles students in Tanzania face in regards to furthering their education and identify resources needed to help them to progress from one level of education to another.

The purpose of this research is to help better understand how to go about fulfilling a personal dream of creating an academic preparation program for schools in Tanzania. It will provide perspective as to what type of program is needed in Tanzania, or whether one is needed at all. It will help to understand the school system there and whether it plays a role in the disparity that may or may not exist between girls and boys in regards to furthering their education.

Research has shown that a disproportionate number of males to females continue on to further their education due to societal norms. Gender roles in the Tanzanian culture are specifically defined. Girls are expected to be good homemakers and know how to take care of their children and husband; as a result, more emphasis is placed on these character traits than on education.

When students finish primary school they must pass an entrance exam for secondary school. If they do not pass, they do not qualify to go on to government-funded secondary school and their only option for furthering their education is to attend a private secondary school. Many families are unable to finance private school education, so this is not a viable option for most students. Families find themselves in very complex situations because of societal norms. Many end up encouraging girls to get married or work, choosing to school their sons over their daughters to avoid a financial burden.

The preliminary research question is as follows: in Tanzania, does a gender disparity exist in who continues on to secondary school and if so, could an academic preparation program help reduce the inequality?

Methodology

In order to gather data on this subject, quantitative research will be conducted. Academic preparation studies that have been done in public schools in Tanzania will be reviewed. Google Scholar and EBSCOHost were the two main sites used to search out scholarly articles and journal entries. Some of the key words used were "Tanzania's education system", "Schools in Tanzania", "Gender relations in School", "Access to education in Tanzania", "Quality of education in Tanzania", "The United Republic of Tanzania", etc. Articles included in the research were based on the published year, credibility, and information provided.

The National Republic of Tanzania

Tanzania is a country in the eastern side of Africa that formed a union between the mainland territory, Tanganyika and the island, Zanzibar. It attained its independence from colonial rule in 1961. Tanzania is a developing country that is steadily gaining economic stability, though is still facing many hardships. As of 2013, approximately 28.2% of the population lives below the poverty line and approximately 40% of the adult population earns less than \$1.25 per day where nine out of ten Tanzanians earn less than \$3 per day. A lot of work is needed to improve the system as it relates to primary school completion, maternal health, poverty eradication, malnutrition, and environmental sustainability; all of these issues are United Nations Millennium Development Goals that Tanzania is lagging behind on (Worldbank.org, 2015).

The Education System

The education system in Tanzania starts with two years of pre-primary school, seven years of primary school, four years of ordinary secondary school (ordinary level), two years of advanced secondary school (advanced level) and at least three years of higher education. For students in Tanzania, education usually starts at age seven with the academic year running from September to July. Primary education is mandated by the government and is taught in the national language of Kiswahili. However, both secondary and university level education is taught in English. Primary education ends with the Primary School Leaving Examination. This examination determines if students advance to Secondary School or are sent to vocational preparation schools (Ep-Nuffic, 2014).

Secondary education is divided into an ordinary secondary school level and an advanced secondary school level. The ordinary secondary school level is intended for the 14-17 age group, while the advanced secondary school level is intended for the 18-20 age group. Ordinary level schooling has forms one through four, and in these levels students study civics, English, Kiswahili, history, geography, physics, chemistry, biology, and mathematics. Advanced level schooling has forms five and six, where students specialize in commerce, the arts, social sciences or natural sciences, and other general studies. At the end of these levels, students take examinations for the Certificate of Secondary Education and Advanced Certificate of Secondary Education respectively (Ep-Nuffic, 2014).

Students that achieve a satisfactory result for the Certificate of Secondary Education may then attempt to obtain an Advanced Certificate of Secondary Education. In order to obtain an Advanced Certificate of Secondary Education, students are required to study 3 subjects. Examination results are expressed in letters, where the letters "A" through "E" represent a passing grade (principal pass), "S" represents a subsidiary pass (insufficient for a pass

at ACSE level, but adequate for a pass at CSE level) and "F" represents a fail (Ep-Nuffic, 2014).

Quality of Education

Leaders in Tanzania acknowledge that there is a need to improve the quality of education that is provided in order for the nation to continue to develop. The vision of the Ministry of Education and Culture in Tanzania is as follows:

Be a nation with high level of education at all levels; a nation which produces the quality and quantity of educated people sufficiently equipped with the requisite knowledge to solve society's problems, in order to meet the challenges of development and attain competitiveness at regional and global levels (Tanzania Ministry of Education and Culture, 2011, p.1).

In 2001, Tanzania increased spending on education, financed large-scale classroom construction programs and abolished primary school fees. The number of children out of school declined from over 3 million in 1999 to around 33 thousand in 2008 (UNESCO, 2011). With this expansion of primary schooling, a sustained focus on quality education becomes crucial.

The education system in Tanzania faces numerous challenges that impact quality, such as insufficient manpower, and unequally distributed education levels. This causes excessive disparities such as gender inequality, the widened gap between the rich and the poor, and differences between rural and urban institutions such as schools. A good example is the retention and dropout rate of 2002 – 2003 which was recorded as high as 40% of the children that entered school but did not finish their primary education (Ndoye, 2008).

Despite Tanzania's commendable efforts in increasing funding for education in recent years, and being 7.1% ahead of its regional neighbors in GNP in 2008, this investment has not gone far enough to meet citizen expectations and satisfaction on quality education (UNESCO, 2011, p. 3). Most educational funding comes from the government, especially in public schools. However, parents are also involved in the development of schools through payment of various fees and levies. Parents are asked to pay fees for tuition, examination, watchmen, furniture, lunches, and anything else that the school may need. However, the poor economic status of most parents, especially those in rural villages, renders them unable to support most educational programs in schools. The major issues impacted by inadequate funding, especially in rural areas, were noted as low teacher salaries and a lack of sufficient facilities, educational equipment, electricity, clean water, and qualified staff (Tshabangu, & Msafiri, 2013, p. 5). It is not uncommon to find students crammed in run-down classrooms sitting on the floor, and over 50 of them sharing a textbook. The same is also common in some impoverished urban communities. Schools that are located in towns often get some govern-

ment attention, partly due to local political pressure on governing authorities to meet minimum standards, and the ability by most gainfully employed parents to pay fees to fund various educational programs (Tshabangu, & Msafiri, 2013).

A lack of adequate funding in education has led to lack of access to quality education, and thus preventing many Tanzanians from escaping the cycle of poverty. The state of Tanzania's economy, which is ranked as among the poorest in the world, continues to encumber quality education efforts - as most educational programs cannot be sustained efficiently (UNDP, 2010). Raising levels of quality in education may depend less on central government for direction, and a more concerted effort by school administrators working with local leaders to create a quality-conscious philosophy within schools. The government should consider addressing the unfair distribution of qualified teachers and providing adequate funding to schools to beef up infrastructure and provide adequate learning materials (Tshabangu, & Msafiri, 2013).

Access to Education

In Tanzania, the increases in enrollment rates in primary schools called for expansion of secondary education. The Secondary Education Development Plan (SEDP) had a goal of increasing the proportion of Tanzanian youth that complete secondary education. The projections aimed to achieve a 50% primary to secondary transition rate (Okkolin, Lehtomäki and Bhalalusesa, 2010). Since 2004, the net enrollment ratio has increased every year, from as low as 6 to 20.6 in 2007. Unfortunately only 17% of the students were enrolled at the official age (14 years). The net enrollment ratio for Ordinary (O-level) was 20.7 and 0.9 for Advanced level (A-level). This means that the number of students completing six years of secondary education was very small. The difference in enrollment rates between girls and boys remained quite small for O-level. For A-level girls made up only 0.6% of the net enrollment ratio (URT, 2011, p.49).

The SEDP paid attention to the poor performance in the secondary education national examinations and, consequently, set an objective to improve the quality. The students' level of performance was improved, but girls tended to have a lower passing rate than boys. Form six examinations also proved, without question, that the performance in all-boys schools or all-girls schools was better than the performance in co-education schools (URT, 2011). During the first years of SEDP implementation the dropout rates increased, and were highest in form two, where an examination was introduced. As in primary education, absence was reported as the leading cause of dropouts in secondary education, followed by pregnancy, since there was no policy on re-entry of pregnant schoolgirls after delivery (Okkolin, Lehtomäki and Bhalalusesa, 2010).

The funding of schools by parents has often created quite a burden

on many families, especially large families, single parent families, and orphaned learners. In families where parents do not yet appreciate the value of education, let alone girls' education, these financial demands weigh heavily enough to discourage them from educating their children or paying their fees. These inequalities are what also contribute to most school girls not reaching secondary education, and in some cases adversely affecting their academic performance (Tshabangu & Msafiri, 2013). In Sub-Saharan Africa, the most significant causes for not attending school, and also for not being enrolled, were the direct costs of schooling like fees, uniforms and equipment. It was easier for boys to find work and contribute to or cover the costs, whereas girls had more domestic responsibilities, and therefore, their education was more costly (Colclough et al., 2003). School-related barriers to girls' participation in education consist of the poor quality of the learning environment, irrelevant curricula, long distance between home and school, shortage of female teachers as role models, sexual harassment, and discriminative practices in school (Okkolin, Lehtomäki and Bhalalusesa, 2010).

In 1980 Tanzania's professional women gathered to form a special organization called Women Education and Development (WED), whose main goal was to enhance gender equality in education. Since then, the levels of enrollment across most mainstream sectors of education have reflected improvement in terms of quantity and access (Tshabangu, & Msafiri, 2013).

Tanzania will soon reach universal primary education, and though this is positive news, gender equality issues remain a challenge, particularly for secondary education. The gender gap in primary education has been closed - an equal number of girls continue to secondary school as boys. In contrast to this, in upper secondary school (A-level), boys still outnumber girls. Furthermore, when moving from lower to higher levels, the differences in achievements between boys and girls grow (Okkolin, Lehtomäki and Bhalalusesa, 2010).

Policies directed towards increasing a child's attendance need to be focused on the supply of schooling beyond the primary level. Given that the opportunity cost of a child's time, especially a girl's time affects attendance, policies that affect demand for child labor within the household, and those that promote substitutes for child labor should be considered (Burke, Kathleen, and Beegle, 2004).

Results

This research sought to find if a disparity existed among males and females in regards to who continued on from primary school to secondary school. The research conducted shows that a large disparity does not exist in the transition from primary to secondary. World Bank data (2015) shows that progression to secondary school for females was at 53.9% as of 2012 and male progression was at 58.9%. Though there is a small disparity, a larger

disparity exists in the completion of secondary school. Girls tend to perform consistently more poorly than boys as they move toward completion of secondary school. The United Republic of Tanzania report (2013) stated:

In 2012, about 35.6% of boys passed compared to 26.7 % of the girls. Not only did fewer girls pass the Post-Secondary School Leaving Examination (PSLE), but those who did so, passed with lower grades. Passing with lower grades means that they may not have the capacity and knowledge to handle the academic rigor of university or trade schools. In 2012, for example, 0.5 % of the boys passed with an A grade, 6.0 % with a B grade and 29.0 % with a C grade. On the other hand 0.2 % of the girls, less than half as many as boys, passed with an A grade, 3.5 % with a B grade and 22.6 % passed with a C grade (URT, 2013, p.50).

Another alarming statistic is the number of overall students who actually pass the Post-Secondary School Leaving Examination. According to the Tanzania Human Development Report of 2014, "In the 2012 Form four results, 60% of those who sat for the exams obtained zero division; another 20% obtained division four. This means that 80% of Form four leavers failed (since division four is also categorized as failure)" (THDR, 2014, p.13). This is an alarming figure, considering that Tanzania already has a low number of students going into secondary school compared to other similar countries. According to PHC 2012, "the highest level of education attained after primary school is quite low: only 14%, 0.8% and 2.3% of all adults had attained secondary, training after secondary, and university/other levels of education respectively" (NBS, 2014, p.12). Post-secondary schools have not been able to prepare students for university education and this trend is creating a large population of uneducated adults in Tanzania.

Low overall enrollment for secondary school may be caused by the rapid deterioration in enrollment rates in primary schools. The Tanzania Human Development Report (2014) shows that entry rates for primary school are relatively high at almost 90%, but completion rates are at 54%. This means that even though enrollment is increasing, the completion ratio is not increasing in response, causing a low number of students who are able to continue on to secondary school.

The disparity is larger when comparing students from poor income groups and rich groups. According to the Tanzania Human Development Report (2014), only 40% of the children from the poor income group (and an almost equal proportion of the middle class) complete primary school, compared to 75% of the rich. "When it comes to secondary school, school-age youth in urban areas are much more likely (44%) than their counterparts in rural areas (19%) to attend secondary school" (THDR, 2014, p.15).

There are many things that must be done in order to improve the quality of education for all, as well as the accessibility of higher education for females in Tanzania. A big issue that impedes the progress of Tanzania's edu-

cation system is the language of instruction. Research showed that the majority of primary schools are taught in Swahili and students are not exposed to the English language early on, but are expected to have a good understanding by the time they are in secondary school. Secondary schools teach in English, and for students who were not exposed to the language until later in their primary schooling, it is very difficult for them to make the transition from primary to secondary. Educators and researchers agree that language is the barrier to many children's education. As Obanya (1980) states: "...it has always been felt by African educationists that the African child's major learning problem is linguistic. Instruction is given in a language that is not normally used in his immediate environment, a language which neither the learner nor the teacher understands and uses well enough" (Obanya, 1980, p.20). What many educators, researchers, and policy makers differ on is the solution. Many believe that English is a global language and a necessity to learn, so it must be taught at an early age. They believe that the language of instruction should be English beginning in primary school and continuing on, so that students are continuously exposed to it, leading to mastery of the language. However, others believe that English should be taught as a foreign language and that the language of instruction should be Kiswahili. One source states: "In order for the majority of Tanzanian people to participate meaningfully in education, education has to be conducted in the language they understand" (Zajda, 2005, pg.14). This argument has been long-standing with research backing both claims, but policy makers need to act in some way to change Tanzania's school system in regards to language of instruction. Both sides agree that teachers must be trained to improve their English, and sufficient supplementary/light reading for every student must be provided.

Conclusion

Research shows that there is a large disparity in the ratio of males to females who complete secondary school. Focus must be placed on not only encouraging enrollment, but also attaining retention and completion for girls in secondary school. An equally important focus must be placed on helping a larger number of students to complete primary school so that they can go on to secondary school.

The barriers that girls are facing in regards to schooling are numerous. Pregnancy and early marriage are the most common reasons for girls not completing school, followed by a lack of resources to pay for school, distance from school, and having to juggle responsibilities at home with school work. In order to address the disparity found in completion of secondary school, policy changes and reforms must be made. Teachers who are sensitive to gender and child rights should be recruited and trained. Both female and male teachers should receive training in gender awareness in the classroom, as some teachers may value and encourage male participation in class

more than they value a female's participation, and may allocate school tasks along strict gender lines, leaving girls to sweep the floors or clean the toilets (Unicef, 2002). Additional female teachers should be recruited in some areas so that they can serve as role models for girls, and allow the parents to feel more comfortable with their girls going to school. There should be flexibility in terms of lesson scheduling. Schools in rural areas should take into account harvest and planting seasons where many girls are required to help when scheduling school times. Policies should be made that enable young mothers to return to school and provide a curriculum that is manageable and flexible for their needs. Alternative education for girls should be considered. Education centers established outside the formal schooling system can help educate girls who have dropped out, as well as working children and those who may not have the means to get formal schooling.

The current low levels of overall completion of primary school and falling standards of education in Tanzania are partly a result of poor teacher competencies and poor teaching motivation. Teachers have a crucial role in improving the quality of education. Improving the professional competencies of teachers and improving their living conditions and pay will help improve the quality of education. Policies must be put in place to increase teacher compensation as well to provide for a more rigorous teacher selection process. Recruiting qualified, motivated, and passionate teachers must be emphasized so that students are encouraged to pursue education as a profession (THDR, 2014).

In conclusion, research indicates that some type of academic program is needed besides that of formal schooling to help students who have dropped out, or failed examinations. Research also shows that a small disparity does exist, as it relates to the ratio of males and females who progress to secondary school, but focus should be placed on the disparity between males and females as it relates to completing secondary school. This research was aimed at past studies that have been conducted and analyzed. Future research must be conducted that involves the collecting of real-time data that surveys students, teachers, and families in Tanzania as they account for their views on the education system and what must be done to advance it. More research must also be conducted to focus on what specific types of academic programs would be most beneficial and what means there are to implement them.

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Hegemonic Masculinity as a Predictor of Body Satisfaction

Megan Verhagen¹

Applied Social Science

Advisor: Dr. Nels Paulson

Abstract

The relationship between men and body satisfaction is a topic with increased traction within the academic community. However, there is currently no model in place that measures body satisfaction, and without a complete measure, it is difficult for researchers to understand what influences or predicts body satisfaction and how it influences men's lives. This research used quantitative methods to investigate the use of hegemonic masculinity as a predictor for body satisfaction. A survey containing measures for hegemonic masculinity and body satisfaction was sent to self-identifying, college-aged men (N = 63) to measure the conformance to hegemonic masculinity and its relation to body satisfaction. Results indicate that hegemonic masculinity, as it is currently measured, is not a predictor for body satisfaction. These results suggest that either the production of hegemonic masculinity has changed since measures were last produced or that hegemonic masculinity is not the production of masculinity that interacts with body image. The author discusses why an understanding of the predictors for body satisfaction in men is important and suggests what research can be produced in the future to eventually create a model that can accurately measure body satisfaction and influence the establishment of systems that decrease risk taking in men who experience body dissatisfaction.

Keywords: body satisfaction, hegemonic masculinity, body image, risk behaviors

Hegemonic Masculinity as a Predictor of Body Satisfaction

While there has traditionally been less research performed to examine the effects of body image dissatisfaction in men than in women, the attention brought to the topic is growing. Schuster, Negy, and Tantleff-Dunn found in their 2011 research that there is increased objectification of male bodies in the media, similar to the fashion that female bodies have been objectified for decades (p. 76). These objectified forms of the male body can be found across various forms of media that both men and women consume including: paintings, films, sporting events, and advertising (Wienke, 2000, p.

2). Most of these venues produce an image of the male body that other males consider the most masculine: the mesomorphic physique. This body shape includes wide shoulders and narrow hips along with a higher ration of muscle to body fat. Men tend to associate this body shape with stereotypical masculine attributes including power, aggression, success, sexual success, self-confidence, and other similar traits (Wineke, 2000; Biller & Liebman, 1971; Mishkind et al., 1987). However, this body type, which men associate as the most ideal and masculine, is extremely unrealistic and is often only obtainable through excessive exercising (Pope et al., 1999; Spitzer, Henderson & Zivian, 1999).

Literature Review: Hegemonic Masculinity

Men in Western cultures overwhelmingly identify the muscular body type as the most masculine of any male body type and associate it with strength, tenacity, competence, sexual potency, independence, dominance, self-confidence, and aggression. The concept used to connect these traits is hegemonic masculinity. Hegemony is the concept of winning and holding power in a social structure and having the ability to form or destroy other social groups. It emphasizes conformity, and those that do not conform are rejected from the dominant social group. Hegemonic masculinity as a construct includes the characteristics mentioned above and other similar dominant traits. These ideas that make up hegemonic masculinity have been naturalized and internalized over the years, particularly with the aid of media which evolves around characters or activities that center around stereotypical masculinity. This includes sporting events where athletes are seen as being the ultimate idols of masculinity and perceived as upholding traditional hegemonic ideals.

Mishkind et al.'s 1987 study as well as Biller and Libman's 1971 study showed that respondents identified the mesomorphic physique as more attractive and more masculine than non-mesomorphic physiques. Researchers theorize that this muscularity ideal stems from the cultural view that muscularity equates to masculinity (Yang, Gray, & Pope, 2005). Pompper, Soto, and Piel supported this after showing the mesomorph body type and asking men to assign characteristics associated with it. They found that for most males, the muscular body type was equated with the hegemonic masculine characteristics including aggression, stoicism, toughness, risk-taking, and success achievement (2007, p. 526). To further explain this trend, Connell and Messerschmidt used their research to discuss how the decreased spaces in which men can perform traditional standards of hegemonic masculinity has led them to construct masculinity through their bodies performance and appearance (2005). Due to the proposed connection between muscularity and masculinity, the researcher aimed to investigate whether or not conformance to hegemonic masculine ideals influenced body satisfaction.

Literature Review: Male Body Satisfaction

Scholarship on the male body and masculinity reports a growing concern among men about improving their physical appearance, potentially through unhealthy means. Pompper, Soto, and Piel studied male body image across age and ethnicity in their 2007 study. They found that, while most men were "cynical of magazine images of male bodies," very few were satisfied with their own bodies. They concluded that magazine's male body images contribute to feelings of ambivalence in men over time (p. 537). Exposure to idealized images prompt men to prefer a body that is considerably leaner and more muscular than their own (Frederick et al., 2007; Tigermann, Martins, & Kirkbridge, 2007).

The growing body of research on male body dissatisfaction has focused on this topic of media exposure to idealized images. At the end of the 1990s, magazines marketed to males were among the fastest growing consumer magazine market (Pompper, Soto, & Piel, 2007, p. 525). The increased number of men's lifestyle magazines has catered to the burgeoning interest of male readers in health, fitness, leisure, fashion, grooming, relationships, sex, and popular culture (Shaw & Tan, 2014, p. 119). Correlational studies have shown that there is an increasing relationship between viewing media ideals and body dissatisfaction, where media is negatively affecting male body image (Botta, 2003; Morrison, Morrison, & Hopkins, 2003; Moory & Staska, 2001; Farquhar & Wasylkiw, 2007) and that these media ideals influence the self-identification and evaluation of individual males who view them (Shaw & Tan, 2014, p. 120).

Following this increased exposure to idealized media and body objectification, is an increase in body image concerns among men (Grogan & Richards, 2002; McCabe & Ricciardelli, 2004; Pope, Phillips, & Olivardia, 2000; Cafri et al., 2005; Ricciardelli, McCabe, & Ridge, 2006). As the number of body image concerns in men increases, so too does the number of ways that men attempt to alter their appearance to fit the media ideal (Schuster, Negy, & Tantleff-Dunn, 2011, p. 76). To change their appearance, men engage in risky health behaviors, including smoking, intense dieting, and the use of performance enhancing substances. Each of these behaviors increases the chance that men will have lower self-esteem and depression as well as other health problems (Farquhar & Wasylkiw, 2007, p. 146). Each of these methods is associated with low self-esteem and depression (Farquhar & Wasylkiw, 2007, p. 146).

The study of body image dissatisfaction in men is no longer about whether or not men experience body dissatisfaction, but what influences this body dissatisfaction and causes detrimental reactions. In this paper, I chose to analyze the relationship between conformance to hegemonic masculine ideals, and whether or not the promotion of the dominant social position of men is accepted or rejected, has influenced the way that men perceive their

bodies and how they measure body satisfaction.

Methods

Participants

Participants in this study were male undergraduate students between the ages of 18 and 33. Participants' gender was limited as the study was specifically investigating the use of body image as a measure for masculinity and masculine identity. The participants were not stratified based on any other demographic characteristics, including race, religious affiliation, or income.

Materials

The Multicultural Masculinity Ideology Scale (MMIS). The MMIS was used to measure hegemonic masculinity, which is defined by Rae-wen Connell as practices that promote the dominant social position of men (1995, p. 76). The central idea of masculine ideology measured by the MMIS is that "males act in the ways they do, not because of their male role identity or their level of masculine traits, but because of the conception of masculinity they internalize from their culture" (Pleck et al., 1993, p. 14). Therefore, the MMIS measures an individual's adaption and internalization of a culture's norms about how men should act, or hegemonic masculinity. The MMIS consists of 35 questions measured on a 5-point Likert-type scale. In this study, 20 of the questions from the MMIS were used, with the other 15 left out due to low correlation in the original study (See Appendix A for questionnaire).

The Somatomorphic Matrix Modification (SMM). The SMM was used to measure body satisfaction, which is defined by Pompper, Soto, and Piel as one's internal representation of his/her outer physical appearance (2007, p. 526). The SMM is a computerized body image test that can assess body image satisfaction and perceptual accuracy with respect to muscularity and body fat (Cafri & Thompson, 2004, p. 23). The SMM consists of 34 figures, each increasing in body fat and/or muscularity (See Appendix B for figure).

Procedure

In all, 1,000 participants were randomly selected from the University of Wisconsin-Stout and coded by gender so that 600 males and 400 females were invited to participate in the study. A proportion of female students were invited to participate to accurately measure the social expectation of male body image and so as not to refuse self-identifying male students from participating as enrollment records stratify students based on genetic sex rather than gender identification. For all participants invited to take part in the study, a Qualtrics survey was emailed to them with a description of the study, and they were provided a consent form within the first page of the online survey. Participants voluntarily agreed to take the survey and were explicitly

informed that they were allowed to quit the study at any time. The survey itself took approximately five minutes to complete and consisted of demographic questions, the Somatomorphic Matrix Modification Scale (SMM), and the Multicultural Masculinity Ideology Scale (MMIS). Self-identified male participants were asked to complete the SSM and MMIS. The survey was open for two weeks to allow participants to complete the questionnaires at a time most convenient to them.

Hypothesis

H1: Men with higher levels of conformance to hegemonic masculinity would be more satisfied with their bodies than men with lower levels of conformance to hegemonic masculinity.

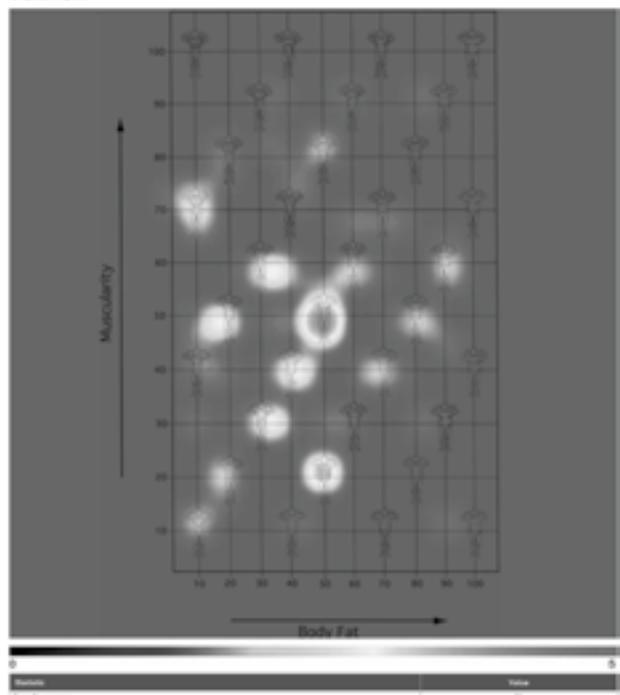
H0: Men with higher levels of conformance to hegemonic masculinity would have the same satisfaction with their bodies as men with lower levels of conformance to hegemonic masculinity.

Results

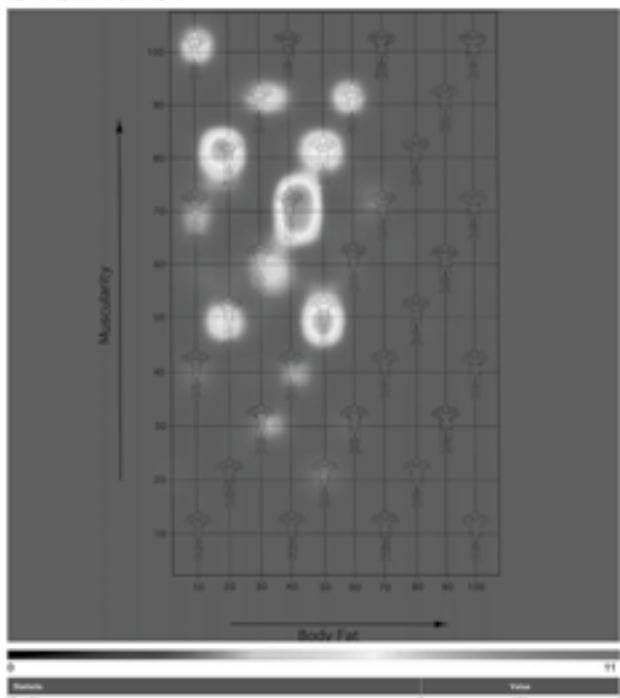
The survey collected 152 responses; 63 had usable data- meaning the respondent had completed the survey fully with no errors and that, as far as the researcher could tell, the participant had answered honestly. The respondents were self-identified male, primarily Caucasian, and the mean age was 21. In all, 32 participants responded that they were satisfied with their body image, while 31 responded that they were not.

The results from the SMM suggest that there is a disjuncture between how men's bodies look in reality and the ideal male body. In the SMM graph measuring realistic body shape, the mean body shape was figure 16 or the figure highlighted in red in Figure 1. Figure 16 represents a person with 50% body fat and 50% muscularity. The rest of Figure 1 shows natural variation around figure 16 that would be expected from the natural human body. Realistically, we would expect there to be a variation in body type and shape as humans are naturally diverse in form. In the SMM graph measuring ideal body shape, the mean body shape was figure 22, a person with 40% body fat and 70% muscularity. Unlike Figure 1, Figure 2 has much less variation, and the majority of results are exclusively in the second quadrant of the measure. This shows that the ideal body shape that was perceived by participants was one with high muscularity and a mesomorphic body shape that is often difficult to obtain.

8. Instructions: Please indicate the body type ideal for your own using the image below. There are no right or wrong answers, as please respond honestly based on how you currently feel.



9. Instructions: Please indicate which body type you believe is most socially desirable using the image below. There are no right or wrong answers, as please respond honestly based on how you currently feel.



Data from the MMIS was recoded into SPSS so that Likert scale measures of 1 represented non-conformance to hegemonic masculinity and measures of 5 represented complete conformance to hegemonic masculinity. As seen in Table 1, results showed that the majority of students scored neutrally ($\mu=2.9$), and no student scored with complete non-conformance or complete conformance to hegemonic masculinity (min=1.95, max=3.84).

Table 1: Descriptive Statistics- Hegemonic Masculinity

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Hegemonic Masculinity	63	1.95	3.85	2.9008	.44508
Valid N (listwise)	63				

The final analysis of the data consisted of a binary logistic regression of all the variables, which looked to see if there was a significant effect on body satisfaction (see Table 2). Body Satisfaction was coded so that 1 was equal to being satisfied with body image while 0 was being unsatisfied with body image. Ideal and realistic body image were both coded so that a higher score was closer to the mesomorph ideal. As stated earlier, hegemonic masculinity was measured on a scale of 1-5 with 1 being non-conformance to hegemonic masculinity and 5 being conformance to hegemonic masculinity. By running a binary logistic regression, the data suggests that age and ethnicity are not predictors of body satisfaction, perception of ideal body type is not a predictor of body satisfaction, hegemonic masculinity is not a predictor of body satisfaction, and realistic body image is a predictor for body satisfaction ($p=.1$). This predictor shows that when a person's realistic body image is closer to the ideal body image, they are approximately 8% more likely to be satisfied with their body image.

Table 2: Binary logistics analysis for effects of age, ethnicity, realistic body shape, ideal body shape, and hegemonic masculinity on body satisfaction

	1	2	3
Realistic Body Shape	0.094	0.123	0.078*
Ideal Body Shape	0.224	0.351	0.475
Hegemonic Masculinity	0.225	0.355	0.364
Age		0.37	0.467
Ethnicity			0.993
R ²	0.1	0.111	0.121
df	1	1	1
N	63	63	63

* $p<.10$; ** $p<.05$; *** $p<.01$; **** $p<.001$

Discussion

The research presented above suggests some very interesting patterns regarding masculinity, body image, and body satisfaction. As supported by previous research presented by Pompper, Soto, and Piel, age and ethnicity were not significant for predicting factors for body satisfaction (2007, pgs. 532-4). Also similar is research by Nikkelen, Anschutz, Ha, and Engles who reported finding no differences in body dissatisfaction after exposure to idealized images during their study, suggesting that perception of idealized body image also does not predict body dissatisfaction (2011, p. 317).

The data on hegemonic masculinity provided in the binary logistics analysis suggests that hegemonic masculinity cannot be used as a significant predictor for body satisfaction. This means that the null hypothesis, which states that men with higher levels of conformance to hegemonic masculinity would have the same satisfaction with their bodies as men with lower levels of conformance to hegemonic masculinity, is accepted.

There are two possible explanations for this result. First, hegemonic masculinity may simply not be a predictor of body satisfaction and it would be beneficial to look at other predictors in order to measure body satisfaction. However, it is also possible, that, as Raewen Connell's research suggests, there are various types of masculinity (of which hegemonic masculinity is one) that can be performed by men in various environments or social situations (1995). It may be possible that the men from the population sampled performed a different type of masculinity than hegemonic masculinity. The social environment today also supports this idea. There is an increased awareness of hegemonic masculinity, and various feminist researchers have brought attention to said masculinity's detrimental effects in the subordination of women. Because of this increased awareness, it may be possible that hegemonic masculinity has become less socially acceptable to perform, and therefore men are moving away from the ideal and towards a new type of masculinity.

Realistic body shape was the only predictor within the model presented that was slightly significant. As was interpreted in the results of the binary logistic analysis, men who had a body closer to the mesomorphic ideal were 8% more likely to be satisfied with their body. This suggests that personal conceptualization of one's own body is an important contribution to body satisfaction. An explanation for this significance could be that when men indicate idealized body image, they are focused on what Farquhar and Wasylkiw would call body-as-object, which analyzes the aesthetical appeal of various body parts. When focused on realistic body image, however, men may focus more on body-as-process, which analyzes how a body performs. In this case, if the body performs well as a whole, then men would be more satisfied than focusing on their body as individual pieces (2007, p. 148). It is important to note, however, that whether Farquhar and Wasylkiw's theory

on body satisfaction is correct or not, men analyzing their body as object or process are still focusing on images tied to the mesomorphic ideal.

Limitations and Future Directions

There were a few limitations and biases present in this study. First, the response rate is indicative of a limitation. Of the 1000 surveys originally sent out, only 68 displayed usable data. There is a possibility that this low response rate skewed the data. A second limitation present was the decision to measure hegemonic masculinity specifically. By limiting the data collection to a single measure of masculinity, there is a possibility that valuable information presented in the study is not indicated in the results. Perhaps the largest bias of the study was the decision to analyze the results of male-identified students. There is a possibility that information could have been gathered by female participants concerning their perspective on hegemonic masculinity as well. However, because the focus on the study was body satisfaction in men, the results analyzed came from self-identified male students alone.

This research suggests that realistic body shape is a predictor of body satisfaction. Because of this, it may be beneficial for future research to learn more about realistic body shape. How do men as individuals objectively perceive their bodies, and what influences the ways that they conceptualize a "good" or "bad" body? Finding the answer to these questions may expand on why realistic body shape was the only predictor in this model for body satisfaction in men. In this time period where body positivity and acceptance is an uphill battle, understanding how men perceive their bodies may help identify more predictors that could be added to the model created in this paper.

Research should also be conducted into types of masculinity, particularly how to identify various expressions of masculinity and how to measure these expressions. Connell and Messerchmidt discussed in their research how hegemonic masculinities can change over time and that older ideals of masculinity can be displaced by new ones (2005, p. 833). Their research also supports the idea that various social settings can influence how men express various masculinities and gender relations (2005, p. 836). To continue to create a model to measure body satisfaction and therefore identify ways that programs can support men with body dissatisfaction, there needs to be more research into the ways that hegemonic masculinity has changed over the years. Moreover, research into how various masculinities influence body perception will need to be recognized, measured, and then integrated into the model.

While there is a greater attention on male body satisfaction in 2014 than in 1987, there is still very little knowledge on what causes body dissatisfaction and how body satisfaction can be measured. Future research into different models of masculinity and the effect of idealized images versus

realistic body images could be critical in explaining how body dissatisfaction forms. Knowing how body dissatisfaction is constructed would allow support systems to be created and practiced that would decrease risk-taking behaviors that men use to reach ideal bodies. Having safe and effective methods for producing body satisfaction would decrease the number of injuries caused by body dissatisfaction and could potentially change how the ideas of body image and masculinity are produced in the social world today.

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Appendix A: Multicultural Masculine Ideology Scale

Doss, B., Roy Hopkins, J., 1998

5-point Likert scale:

1. Highly disagree
2. Disagree
3. Neutral
4. Agree
5. Highly agree

For Self-Identified Males

1. I am courteous to women my age.
2. I usually do no let others know how I am feeling.
3. When I am mad at someone, I am likely to fight.
4. I hug my closest guy friends.
5. My date's looks are more important than her personality
6. Once I have had sexual intercourse with someone, I usually have sexual intercourse with that person as often as possible.
7. In difficult times, I try to be tough.
8. I do not get very angry at people when they do something mean to me.
9. I show affection towards people I love.
10. I try to block out fear because it only gets in the way.
11. I don't (or didn't) keep my virginity a secret.
12. I don not cry when something bad happens to me or my loved ones.
13. When I want something, I use aggressive ways to get it.
14. I am not competitive with others.
15. I have sexual intercourse only in emotionally committed relationships.
16. I look for danger just for the thrill of it.
17. I am not athletic or good at a sport.
18. I had (or will have) sexual intercourse at my first opportunity.
19. I don't show emotion because it would mean that I was weak.
20. I ask for help when I need it.

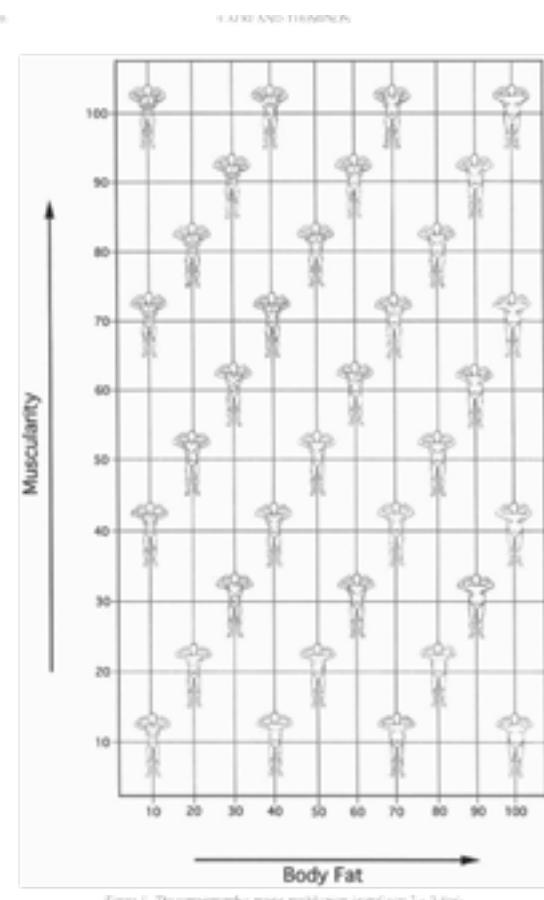


Figure 1: The somatomorphic matrix modification (female score 7 to 9 male).

Intention and Consequence in Stem Cell Research

Justin S. Olson

Senior, Applied Science

Advisor: Dr. Timothy Shiell

Abstract

With the increasing use of stem cells in research, discussion surrounding the use of embryos for the derivation of stem cells has often been the cause of heated debates. After defining stem cells and exploring methods to obtain them, support for their use in research is shown through both Kantian and utilitarian ethical theories. Under the Kantian perspective, egg donation for stem cell research is done autonomously, with informed consent, and the embryo is not considered a rational being that we have a duty to protect. Stem cell research represents the imperfect duty of beneficence, to use embryos that would otherwise go unused in order to help others, and the imperfect duty to develop our talents, as stem cell scientists push forward the frontiers of developmental biology and regenerative medicine. The utilitarian perspective generally argues for maximizing happiness and minimizing suffering. Here, the small investment in the use of embryos proves appropriate given the absence of suffering on the part of the embryo and the vast potential gain in happiness and wellbeing that may be attained directly through stem cell research. A limiting factor in this situation is a lack of viable eggs, caused by public policy that prohibits egg donor compensation beyond incurred expenses. The resulting failure to fairly compensate egg donors for this strenuous and time-consuming procedure makes it challenging to find willing donors. We can resolve this issue by altering policy to allow for egg donor compensation equal to that which egg donors receive in fertility clinics.

Keywords: donor compensation, egg, embryo, ethics, Kant, Mill, stem cells.

Introduction

Since the advent of stem cell use in research, discussion surrounding the use of embryos to derive stem cells has sparked heated debates. Proponents of stem cell research speak of them in hopeful terms, describing enthusiastically the benefits and possibilities of developing our knowledge while opponents warn of crossing the line into immoral territory and often depict the use of the embryo as evil, akin to murder.

Part I of this paper is a primer describing embryonic and induced pluripotent stem cells, how they are derived, and provides a comparison of

the two. Part II includes my argument for the use of stem cells in scientific research from a Kantian perspective as well as in Utilitarian terms. In addition, this paper addresses common secular objections to stem cell research. Part III describes the issue of egg donor payment and makes policy recommendations supporting egg supplier compensation in stem cell research, as is commonplace in fertility clinics.

The ethical debate discussed herein centers upon human embryonic stem cells in scientific research. While there are various techniques to derive stem cells, all of them worthy of discussion, I focus on embryonic stem cell derivation, as this process requires actions that raise the most deep-seated ethical concerns.

Part I: Stem Cell Primer

Upon conception, sperm and egg meet to create a one-celled conceptus, or zygote. The zygote divides continuously forming a spherical mass of cells called the morula. The morula will enter the uterine cavity two to three days post-fertilization, where it becomes a blastocyst: a hollow sphere of cells, containing a localized group of cells called the inner cell mass (ICM) (Figure 1). When cells of the ICM are extracted and cultured, they are considered to be embryonic stem cells (ESC).

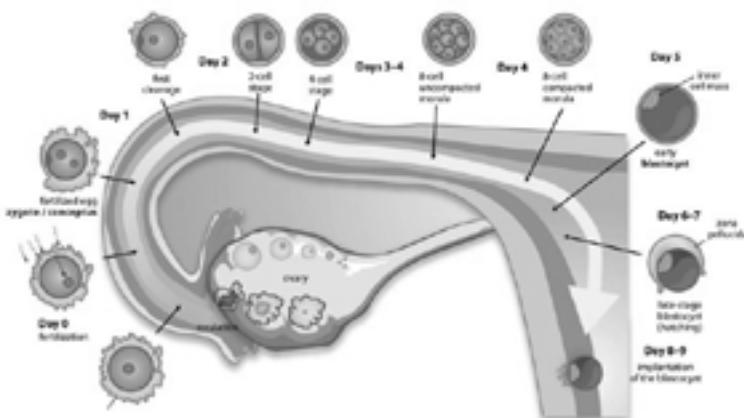


Figure 1: The fertilization and implantation process. On day 5, the blastocyst is formed. The blastocyst is composed of a hollow sphere of cells that make up the trophoblast which will eventually develop into a large part of the placenta. The trophoblast surrounds a region of pluripotent cells known as the inner cell mass. In normal development, the blastocyst would proceed to implant in the uterine wall, as depicted here. Image adopted from (Karacosta, 2015)

What is a stem cell?

Stem cells are characterized by their behavioral capabilities rather than cell morphology. They are defined as undifferentiated cells, indicating

that they have not taken on the morphological or genetic changes that are characteristic of differentiated cells; rather they remain in a 'flexible' state. Stem cells are capable of long-term self-renewal, which means that they can continue to divide and regenerate themselves indefinitely (Figure 2) (Evans, 2011). Given the right conditions, stem cells may also be encouraged to differentiate to, or give rise to, other cell types. Researchers commonly encourage the differentiation process through the addition of cellular growth factors or through other manipulations of the cellular environment (Slack, 2012).

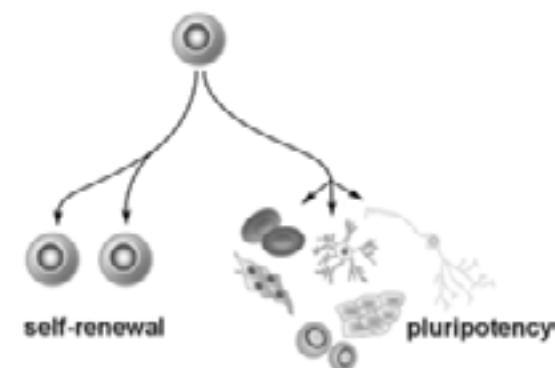


Figure 2: Stem cells may self-renew or differentiate into various tissue types (Adopted from Thomas & Pruszak, 2013)

The property of cell potency describes the range of cell types that a given stem cell has the ability to become. Cell potency varies by stem cell type, resulting in different classifications of potency. Embryonic stem cells and induced pluripotent stem cells are called pluripotent because of their ability to differentiate into any tissue type of an organism besides the trophoblast (Stem Cell Basics, 2009). The human body houses stem cells in multiple locations that are multipotent, or capabilities are limited to progeny of particular cell types. For example, hematopoietic stem cells give rise to all types of the blood cells in the body.

How are human embryonic stem cells derived?

In the majority of cases, human embryonic stem cells are created with unused embryos remaining from an in vitro fertilization (IVF) clinic. For the in vitro fertilization process, the female receives fertility medication to stimulate egg production. Usually as many mature eggs as possible will be extracted because once removed, not all eggs will develop as intended. An egg is then introduced with sperm in the insemination event, creating an embryo. The embryo is allowed to develop for three to five days before it is transferred into the woman's uterus. In order to be successful, the embryo must implant in the uterine wall and sustain implantation. About 30% of

IVF transfers lead to clinical pregnancy's (Larsen et al., 2013), therefore IVF clinics usually obtain multiple eggs during the derivation process. One study identified the optimum number of oocytes for a successful first IVF treatment cycle to be 13-17 (Van Der Gaast et al., 2006). If leftover embryos remain after an embryo has successfully implanted, the woman may choose to cryopreserve the embryos, donate them to research, donate them another individual for reproduction, or in some cases, she has the option of destroying them. If the woman chooses to donate an embryo to science, one of the possibilities is for the embryo to become a human embryonic stem cell line.

Comparing stem cell type: iPSC are similar but not equivalent to ESCs

In 2006, Shinya Yamanaka and Kazutoshi Takahashi published the first paper describing a process for taking mouse somatic cells, tissue of the adult organism, and converting them into pluripotent cells, which he deemed "induced pluripotent stem cells" (iPSCs) (Takahashi & Yamanaka, 2006). In the following year, a similar study by James Thompson of the University of Wisconsin-Madison described accomplishing induced pluripotency with human cells, creating the first human induced pluripotent stem cells (hiPSCs) (Vodyanick et al., 2007).

One advantage of hiPSCs is that scientists may use a patient's tissue to generate stem cells, convert the stem cells into a tissue the patient needs and then transplant the tissue into the patient, avoiding immunorejection. iPSCs allow researchers the ability to study patient-specific diseased cells and test the effects of drug treatments on patient tissue to help in the development of patient-specific therapeutic options.

Initially, it was thought that iPSC would be a replacement for the use of ESC, circumventing the ethical concerns of ESC use by replacing them with iPSC. *Prima facie* iPSC appeared to be a solution to the ethical concerns of deriving ESCs. In 2009, several publications identified dissimilarities between iPSCs and ESCs in gene expression, epigenetic signature, mutation load, and differentiation capacity, suggesting that iPSC are not equivalent to ESC and cannot serve as a replacement in all cases (Chin et al., 2009; Machetto et al., 2009; Ghosh et al., 2010; Bilic & Belmonte, 2012).

In their review of iPSCs vs ESCs, Bilic & Belmonte identify three emerging differences between the cell types:

So far, all experiments point to three major characteristics when focusing on the distinction between iPSC and ESC. One is the aberrant silencing of somatic genes in cells undergoing reprogramming, another is the weak activation of ESC specific pluripotency genes, and the third are unspecific aberrations distinct from either the cell of origin or ESC.

According to George Daley, "iPS cells and ES cells are neither identical nor distinct populations. Instead, they are overlapping, with greater variability inherent within each population than between the populations."

These differences represent imperfections present in iPSC that are being reduced as reprogramming protocols are improved and refined. However, it appears that iPSC may retain a genetic memory of the previous cell state and it is not clear that this memory can be completely removed. Until a way is discovered to remove the genetic memory from an iPSC, which would allow iPSC to match ESC in quality, ESC remains the gold standard for use in stem cell research. While iPSC serve many purposes, they are not an equivalent replacement for ESC at this point (Robinton & Daley, 2012).

Part II: Intention & Consequence

Kantian and utilitarian approaches are utilized to advocate the use of iPSC and ESC in stem cell research. I show these traditional ethical theories uphold and support both the intentions and consequences of embryonic stem cell research. These theories are used to explore common religious objections, and show that the secular counterparts to these arguments fail to hold up against criticism. This work suggests public policy should follow the Kantian and Utilitarian conclusions.

Kantian View on Stem Cell Research

Eighteenth century Prussian philosopher Immanuel Kant sought to define moral acts as objectively right or wrong in all situations. In doing this, he created three formulations of the categorical imperative based upon the premise that the motivation or intention behind the action is what determines the action's morality. Therefore, the categorical imperative formulas may be used interchangeably as they are designed to lead to the same conclusions regarding the intention of one's actions.

The first of his three formulations addresses the principle of universalizability which states that we should, "Act only on that maxim through which you can at the same time will that it should become a universal law" (Schoenecker, 2013, p. 24). Here, Kant explains that we must only act with an intention that we could wish everyone abided. In his second formulation, Kant explains we should intend to treat one another as an end and never as merely a means. The third formulation states that we have a duty to legislate in accordance with the first and second formulations.

A maxim is tested against the categorical imperative, if it passes the test it becomes what Kant refers to as a duty. Kant describes a duty by our ability to follow it, and defines duties as perfect and imperfect. A perfect duty is a duty we have a responsibility to abide to without exception such as not to lie, or to not commit suicide. An imperfect duty is distinct from a perfect duty since it is right to follow, but we are limited in extent or ability to complete it. Kant names two imperfect duties explicitly: beneficence and to develop our talent.

Regarding stem cell research, some people claim there is a perfect duty to protect the embryo from destruction. However, Kant describes a rational being as capable of acting autonomously and granting informed consent (Popjman, 2003). The embryo fails to possess these qualities, making these areas, as far as a Kantian would be concerned, a non-issue.

The embryo does not exist as a rational being, however it is often granted protection for a different reason. Some argue that pre-implantation embryos should be protected because of a similarity to what are called "persons in the extended sense", this description includes individuals such as children, who are not yet rational beings but have the potential to develop into them, or an adult who has temporarily lost the capacity for rational thought (Wood, 2005, p. 317). If we examine a central component to rational thought-brain development-we find clear differences between the pre-implantation embryo and to individuals we may grant as persons in the extended sense, such as children.

The preimplantation embryo lacks any neuronal tissue whatsoever which makes brain activity, a prerequisite for rational thought, impossible. Children or temporarily incapacitated rational beings may not be rational thinkers at the time, but the central nervous system, which includes the brain and spinal cord, has been established. This nervous tissue is requisite for the production and development of rational thoughts. The embryo has never had these features, and will only develop them provided it is removed from its culture dish and is successfully implanted into the uterus of a woman, because of these developmental obstacles, we should not consider the embryo to be a person in the extended sense.

It can be argued that an embryo is a person in the extended sense because it has the ability to develop into a human. This is one outcome; however, the cells of the embryo may also remain as stem cells or be guided to become tissues of a certain cell type by the same developmental mechanisms that would allow the embryo to become human. To say that the preimplantation embryo is destined only to become a human being at this point denies a range of possible outcomes.

Should we reject the notion of the embryo as a person in the extended sense, we are not required grant protection against its destruction. This is not to say that the embryo is lacking any or all moral worth, but it is making a distinction on how we characterize and treat the pre-implantation embryo at this point. Furthermore, imperfect duty of beneficence to the health of individuals may be considered in support of the utilization of stem cells in research.

Utilitarian Background

The utilitarian viewpoint aims to approach the realm of ethical decisions by considering a kind of cost-benefit analysis. In Utilitarianism, John

Stuart Mill explains that moral worth is developed from experiencing pleasure and pain (Mill, 1863). A utilitarian would support an action that brings the most happiness to the most people. It is necessary to explore and evaluate the ethical cost of deriving stem cells, and in the same way we must also seek to understand the possible benefits of this research. Understanding this cost-benefit dynamic in stem cell research is important, as this is a commonly used form of decision-making.

A utilitarian viewpoint is that moral worth is based on one's ability to experience pleasure and pain, and encourages a moral compass that directs the user toward actions that cultivate the highest quality pleasure for the most people and reducing suffering. The destruction of the pre-implantation causes no pain to the embryo and is likely to increase quality of life and conscious experience for a number of people as therapies are developed. As neuroscientist and philosopher Sam Harris states in his book *Letter to a Christian Nation*:

A three-day-old human embryo is a collection of 150 cells called a blastocyst. There are, for the sake of comparison, more than 100,000 cells in the brain of a fly ... [if] you are concerned about suffering in this universe, killing a fly should present you with greater moral difficulties than killing a human blastocyst.

The 'cost' of utilizing embryos for stem cell research is so low that it should not be a concern. Given the possibility of drastically improving human health and well-being using these technologies may be one of the best ways to maximize experience of pleasure and minimize pain. To understand a position a utilitarian might develop regarding stem cell research, we must develop an idea of the possible benefits and concerns of these advancements the advancements.

Benefits of stem cell research

Stem cell research is the product of over a hundred years of exploration in the field of developmental biology. The creation of stem cells has allowed for a more detailed understanding of transcription factors and epigenetic changes that allow a stem cell to pass from a pluripotent state to a defined lineage, and has played an important role in research by allowing scientists to culture various tissue types. Stem cells are beneficial because they allow scientists to grow and study various types of tissues in ways not previously possible. For example, stem cells allow researchers to study DNA mutations and disease states, as well as how various tissue types are affected by these conditions, enabling researchers to better understand how living diseased tissues function.

Scientists can also use stem cells to study toxicology and pharmacology by creating tissues, introducing different substances into the cell culture to study how the cells react in previously inaccessible human tissues and

organs, such as the brain. In the future, scientists may utilize patient's cells to study the way their tissue responds to a given drug to ensure safety and proper dosage, calibrated to the unique genetic information of the individual. Perhaps the biggest goal and potential benefit in stem cell research lies in regenerative medicine. It is the hope of stem cell researchers that one day we may be able to develop the ability to generate organs and tissue for transplant using stem cells. This would allow researchers an enhanced ability to study live organs and reduce the large number of individuals on a waitlist in need of an organ or tissue for transplant.

Concerns with stem cell research

In his work, *Stem Cells, Biotechnology, and Human Rights: Implications for a Posthuman Future*, Paul Lauritzen raises several concerns regarding the capabilities of stem cell technologies. Assuming that one day, stem cell therapy contributes to the lengthening of human lifespan for an average of about 70 years, to over 110. The consequences of extended human life may include delaying mental maturity, a loss of a value of life, psychological distress, confusion about one's sense of 'self', and a decrease in quality of life. It may also worsen overpopulation and increase the burden of healthcare. A gap between those who have access to and can afford these theoretical life-extending treatments and those that cannot may create societal hierarchy leading to intolerance between groups.

Utilitarian Perspective on stem cell research

One analogy that may be helpful in understanding the utilitarian perspective on stem cell research may be understood by comparing it to fire insurance. Due to the large amount of capital invested in a house, as well our reliance and dependence on the shelter provided by a house, it is worth purchasing fire insurance to protect ourselves from this great possible loss, even though house fires are rare. Homeowners purchase fire insurance to protect them from this risk, and because the cost of fire insurance is relatively low for the security and protection it delivers, it is thought to be a good investment given the relatively low cost and large benefit it grants the owner in the case a fire does occur.

Stem cell research is similar to the fire insurance analogy because the investment in embryos in stem cell research is extremely low relative to the possible benefits to existing peoples. Therefore, it is logical to accept this small burden due to the vastness of possible benefits. In the fire insurance analogy, there are no benefits to the owner outside of the protection and security granted in the event of a fire. Investment in stem cell research is an investment into future discoveries in developmental biology and regenerative medicine, but we begin to see the benefits immediately by using stem cells to test drugs and gather data on the safety and effectiveness of the chemical.

Stem cell research opens the door for major, paradigm-changing discoveries in science and regenerative medicine, while consistently and continuously producing valuable advancements in scientific knowledge. These advances have real implications in improving human health and happiness, and therefore pleasure. The pursuit of these benefits, being so vast, may be worth the utilization of human embryos for research.

Part III: Egg Donor Policy

A vital component in the development of cures is researcher access to a number of human embryonic stem cell lines. Each stem cell line is genetically unique; containing its own genetic variants. In some cases, cell lines possess a genetic disposition to a particular disease or trait, this is one way for researchers to study said disease or trait. Multiple cell lines of a disease states are important to researchers who aim to study that disease because it allows them to understand responses to variations in genetics, and to test whether a given therapy may be applicable across populations. Currently, public policy prohibiting egg donor payment is preventing the addition of new, healthy embryonic stem cell lines for use in research.

Public policy dictates that embryos must be donated and donors cannot receive payment above incurred expenses. With no financial incentive, few individuals are willing to attend multiple appointments and undergo the egg extraction process, thus embryos to create new human embryonic stem cell lines with are scarce. This scarcity, combined with a lack of quality in a number of existing stem cell lines for the number of new stem cell lines produced. This Public policy is preventing stem cell research benefits from being fully realized by restricting the stem cell lines available for use in research. The limited number of healthy stem cell lines, as well as variation in stem cell line quality, is problematic. Failure to classify inequality between stem cell lines makes drawing cross-study comparisons between different stem cell lines difficult (Daley et al., 2009). Furthermore, the National Academies of Science's Guidelines on human embryonic stem cell research bans egg provider payment (Human Embryonic Stem Cell Research Advisory Committee, 2010). This law makes eggs for research purposes scarce and perpetuates the lack of new and healthy stem cell lines. These restrictions on egg provider compensation in research should be revised to allow payment equal to that available in the clinical setting.

In 2009, President Barack Obama issued an Executive Order that stands as the most recently issued law on stem cell research (Obama, 2009). This federal law prevents eggs obtained from egg provider payment programs from being added to the National Stem Cell Registry. These rules apply to research on hESCs that use National Institute of Health (NIH) funds and the order covers a gamut of concerns including ethical issues, donor consent, the protection of human subjects, and eligibility of hESCs for research using

NIH funding.

The NIH makes embryonic stem cell lines available for NIH-funded research (NIH Human Embryonic Stem Cell Registry Website, accessed April 2015); however, criteria for the acceptance of new lines dictates that payment cannot be offered for egg donation. There is a shortage of women willing to donate eggs to research under the current conditions. Harvard stem cell researchers Doug Melton and Kevin Eggan spent two years and several thousand dollars before finally securing a donor (Maher, 2008). This shortage of egg donors is creating a huge disparity between eggs that could be utilized in research and the number of eggs available.

That was partially because egg donation is such a laborious process. It requires screenings, consultations, hormone injections, and surgical removal of the eggs. This process requires multiple appointments and can take over a total of 50 hours and donor reimbursement in research tends to be limited to lost wages and child care, while in clinical egg donation donors may receive over \$10,000 for the same procedure (Foohay, 2009). The current system offers little incentive for egg donation to stem cell research, making healthy, viable eggs to create new and robust stem cell lines scarce (Klitzman & Sauer, 2009). The ban on funding to egg donors should be removed, and instead the focus of concern should shift to determining what amount of funding is appropriate to pay donors. It seems fair that we seek to set this limit equal to the current market price paid for eggs in clinical use, as the procedures and demands of the process are similar.

Conclusion

This essay has argued for the use of human preimplantation embryos in stem cell research, as human cells best represent human development and are the most powerful tools for learning, discovery, and development of therapeutics available in stem cell research. Exploring ethical issues of using the human preimplantation embryo, the Kantian perspective lacks a perfect duty to use or preserve the embryo. However, the imperfect duty of beneficence supports the use of stem cells to develop and provide advanced patient care. In addition, stem cell research is supported by the general utilitarian view as a viable, appropriate for the advancement of medical research and healthcare given that there is no suffering by the preimplantation embryo.

Stem cell researchers require well characterized, healthy, and viable human stem cell lines (derived from eggs) to produce high quality, reproducible works. We need to consider revising laws that prohibit egg donor compensation and create easier access to eggs for scientists. By allowing for egg donor compensation, researchers will have the materials necessary to create new and robust stem cell lines and enhance stem cell research in the US. This is a necessary step to allow stem cell scientists to produce reliable, high quality research capable of supporting applications in translational medicine.

Achieving these aims is essential to advance healthcare and improve the happiness and wellbeing of people throughout the world.

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International Influence on the Displacement of Refugees

Shelby Schuppe¹

Applied Social Science

Advisor: Tina Lee

Abstract

This research utilizes the United Nations Database for Refugees in order to establish the three countries that assisted Yugoslavia by taking in the highest number of refugees. Germany, the United States, and Sweden were three countries explored in more detail regarding refugee assistance. This research draws conclusions based on historical context, refugee resettlement policy from the United Nations, and country-specific immigration and refugee policies. Germany, the United States, and Sweden each have a unique connection to Yugoslavia both before and during the Yugoslav Wars. The wars took place from 1991 – 1995 when over half of the Yugoslav population was displaced either outside Yugoslavia or within the Yugoslav borders. Yugoslavia is comprised of modern day Serbia, Bosnia and Herzegovina, Slovenia, Croatia, Macedonia, Montenegro, Kosovo, and the province of Vojvodina. This study describes the history of Yugoslavia as it led to the Yugoslav Wars and the displacement of refugees from Yugoslavia.

Keywords: Yugoslavia, Germany, United States, Sweden, United Nations, refugees, history, policy

Introduction

Former Yugoslavia is an area of interest in this research due to the amount of refugees displaced from the country. Former Yugoslavia encompassed seven states within the larger country. Yugoslavia was formed after World War I because of the state deciding to become a separate entity. It was initially formed as the Kingdom of Serbs, Croats and Slovenes but was later renamed Kingdom of Yugoslavia. The Kingdom of Yugoslavia came together as one large state but then divided into separate provinces while banning communism. Before World War II Croatia attempted to break away from Yugoslavia and become an independent state but was stopped when Adolf Hitler attacked Yugoslavia.

Throughout World War II, there were conflicts between the communist-led Yugoslav Partisans and pro-Serbian Chetniks. The Partisans were led by Josip Broz Tito, who would later become the president of Yugoslavia.

The Partisans were focused on resisting occupation, while the Chetniks were against the Partisans. Tito eventually gained control and lead Yugoslavia to an independent communist state.

After World War II Yugoslavia was declared the Socialist Federal Republic of Yugoslavia, modeled after the Soviet Union. Yugoslavia then separated into six republics but operated as one autonomous country. Each republic had control within its specific border but functions under the whole country as Yugoslavia. Yugoslavia as a whole consisted of various ethnicities, as well as religions including, but not limited to, Orthodox, Muslim, Catholic, Protestant, and more. However, Yugoslavia recognized the different nationalities and provided equal rights. Shortly after World War II Yugoslavia began to separate from the Soviet Union. The Soviet Union attempted to block Yugoslavia from receiving the benefits of the Marshall Plan put forward by the United States, but Tito decided to take the support and separate from the Soviet Union. This is the point when the United States started provided support from the damage of World War II. Yugoslavia moved on to recognize Vojvodina and Kosovo as provinces while providing Bosnia and Herzegovina and Montenegro with greater autonomy. It also recognized more minority languages to provide more inclusion.

To continue providing autonomy for Yugoslav republics, each republic and province had its own constitution, supreme court, parliament, presidents, and prime minister. Nationalism was banned from being publicly promoted, but, after Tito reduced the Serb autonomy, Serbs felt as though this decision conceded to other country's efforts.

The breakup of Yugoslavia began in the 1980's after the collapse of the government. This is the point when Slobodan Milosevic took over and attempted to regain Serbia's power in Yugoslavia. Each republic attempted to secede from each other resulting in a fight for independence. The Yugoslav Wars started in 1991 with Croatia and Slovenia declaring independence, followed by Macedonia and Bosnia and Herzegovina, which led to the formation of Federal Republic of Yugoslavia between Serbia and Montenegro in 1992. In 1995 the Dayton Agreement was signed and ended the war, but it did not necessary ensure justice or keep peace.

There are various theories about why the conflict in Yugoslavia started. Most explanations are based on the notion that ethnic and religious divides eventually led to the demise of the country. Ethno-nationalism was seen as influencing the disintegration of former Yugoslavia when ethnic groups sought sovereignty over other ethnic groups (Costalli and Moro, 2012). Ethno-nationalism in itself is not a reason for conflict, but when combined with the need for authority over other groups, it does contribute to conflict between ethnicities.

The conflict in former Yugoslavia is also explained through macro-level and micro-level conflict. On the macro-level, violence resulted from

the adjustments of ethnic maps which led to individuals being on the "wrong side of the border". The micro-level understanding is based on violence as a result of enmity, or a strong feeling of hostility towards one another, between neighbors (Weidmann, 2011). Since former Yugoslavia consisted of various ethnicities and religions within its borders and within its disintegrated borders, the individuals involved in the conflict were connected by their geography.

Efforts were put forward to mediate the conflict in former Yugoslavia with peace negotiations, military support, and activism (Hartzell, Hoddie, Rothchild, 2001). However, Charles Boyd points out the fact that collateral damage negatively affected the way that peace-making was established (1995). This could connect to the increase in refugees displaced from Yugoslavia throughout the wars.

Literature Review

Throughout the conflict in Yugoslavia, individuals were displaced around the world including within Yugoslavia's larger border. Refugees received assistance from the United Nations High Commissioner for Refugees (UNHCR) in order to find a country of asylum away from persecution. According to international law, individuals whose lives are threatened are able to seek refuge in a different country. The UNHCR determines refugee status based on the 1951 Refugee Convention definition of a refugee:

"Owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country."

As well as a broader refugee definition:

"outside their country of origin or habitual residence and unable to return there owing to serious and indiscriminate threats to life, physical integrity or freedom resulting from generalized violence or events seriously disturbing public order."

Based off these definitions, UNHCR will determine the need for asylum and where an individual (or family) should be resettled based on the following considerations:

- Family links, particularly those in resettlement States;
- Resettlement submission priority, vulnerability, and the resettlement country's average processing time and capacity for urgent processing;
- Selection criteria and admission priorities of resettlement countries;
- Allocation of annual quotas of resettlement States;
- Health requirements/availability of treatment, language abilities;
- Cultural aspects;
- Nationality;

- Family configurations; and, if possible:
- The refugee's expressed preference for a resettlement country (UN HCR Resettlement Handbook, 2011).

UNHCR develops protocols for refugees but that does not necessarily mean they are assisted by UNHCR. Over half of Yugoslavia's population was displaced outside of the seven countries within Yugoslavia. The UNHCR Statistical Database provides information regarding a refugee's country of origin and asylum. In the case of Yugoslavia, individuals were also displaced elsewhere in the six—seven, if you separate Serbia and Kosovo—divided countries but it does not provide information regarding ethnic or religious groups (UN Data, 2014).

Examining the UNHCR protocol for refugee displacement along with a qualitative analysis of countries involved in providing asylum, provides a narrative to explain where a refugee would be displaced for asylum. Whether it is driven by conflict, economics, or prejudice; connecting an asylum country to an origin country gives information regarding location of refugees.

Case Studies

The case studies for this research focus on the three countries that assisted the highest number of refugees who were displaced outside of Yugoslavia. Germany assisted the highest number of refugees at 3,137,519, the United States assisted 1,011,715, and Sweden assisted 934,454. Among Germany, United States, and Sweden in the seven highest countries were also Serbia, Croatia, and Bosnia and Herzegovina.

Germany

West Germany established a guest worker agreement with Yugoslavia in 1968 that allowed Yugoslav citizens to move to Germany in order to provide workers for Germany's rapidly growing economy (Mihajlovic, 1987). At this point, Yugoslavia's economy began to crash due to mishandling of finances by the government (Margold, 1967) and a failed economic reform (International Monetary Fund Annual Report, 1968). In the two years leading up to the guest worker agreement, Germany, along with other less developed countries, decreased its intake of imports from Yugoslavia which contributed to its collapse and eventual demise of the country (International Monetary Fund Annual Report, 1968).

Yugoslavia was a country effected by Germany's invasions during World War II, which led to needing extensive repairs for the country as a whole provided by support from other countries. Johanna Shonick analyzes the implications of the West German guest worker agreement with Yugoslavia as a way to repair negative relations between the two states after Germany occupied Yugoslavia (2009).

United States

The United States provided support for Yugoslavia through difficult economic times in the past, as well as military support, particularly after World War II and during the rise of communism. The United States established the Marshall Plan after World War II to assist European countries through repairs. The Soviet Union attempted to block Eastern European countries from receiving support but Yugoslavia decided to accept the support and break away from the Soviet Union (U.S. Department of State).

In terms of the United States immigration policies, they were traditionally closed off to southern and eastern Europe, as well as other parts of the world, but gradually opened up through revisions implemented in the 1960's and the 1980's. The United States Refugee Act in the 1980's—an addition to the Immigration and Nationality Act—provided information regarding admission of refugees based on the United Nations definitions (Office of Refugee Resettlement, 2012). Immigration policy in the United States did not initially include refugees in the definition but began creating separate policies regarding refugee placement. This works in conjunction with the UNHCR's guidelines for placement based on the understanding that families may already be located in the United States.

Sweden

Sweden has a history of supporting and embracing diversity in its immigration policies but did not necessarily have a direct connection to Yugoslavia as Germany and the United States did. Sweden went through changes in their economy that allowed them to rebuild with a strong welfare system, as well as an immigration and minority policy that allows refugees to utilize the same rights and privileges as a naturalized citizen (Soininen, 1999).

Throughout the Yugoslav Wars Sweden provided support through the United Nations Protection Force (UNPROFOR) which was designed to provide humanitarian aid and safe areas in Bosnia and Herzegovina, Croatia, Federal Republic of Yugoslavia (Serbia and Montenegro), and Macedonia. Sweden typically provided support in peacekeeping forces for the United Nations regardless of the conflict (Johanasson, 1997).

Discussion

This study demonstrates that the historical connections between countries can contribute to the destination of refugees during conflict. Germany, the United States, and Sweden assisted Yugoslavia at different levels before, during, and after the Yugoslav Wars. Germany in particular displays strong connections between the acceptance of Yugoslav refugees and the assistance they provided. The United States provided monetary assistance before and after World War II to rebuild Yugoslavia's economy and infrastructure. Yugoslavia sought support from the International Monetary Fund, which

also attempted to establish financial stability when Yugoslavia was in an economic crisis. The United States also developed refugee policies to establish more support for refugees seeking asylum in the country. Sweden provided limited support throughout the Yugoslav Wars with peacekeepers, but typically has open immigration and refugee laws that result in easier access to the country.

Each of the countries talked about in this study have different aspects of involvement with Yugoslavia, but it appears to come down to whether there are any historical connections, as well as willingness to accept refugees. As we see a rise in refugees due to persecution, crisis, or conflict in the twenty-first century, we need to continue the conversation about why and where refugees might go in order to predict the increase in refugees taken in by certain countries. Countries that are economically and socially able to support refugees should certainly be at the forefront of the refugee crisis; however, it is also important to take into consideration the areas where families could possibly be located. This shows in the study between Germany and Yugoslavia with the guest worker agreement, which led to Yugoslav workers relocating to Germany in order to boost Germany's economy and send monetary support back to Yugoslavia.

With the increase in refugees, countries will need to be more prepared to support and assist refugees who are traveling across the world for asylum. Regardless of historical connections, policy will first and foremost determine a refugee's ability to relocate to a certain country. If a policy is closed off and exclusive, it limits the potential for an individual to seek asylum in a country that they have connections established in.

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Justifying Homosexuality: Globalization and Its Impact

Lucas Feldkamp¹

Senior, Applied Social Sciences

Faculty Advisor: Nels Paulson

Abstract

This research examines the topic of homosexuality on a global scale and what helps or harms the justification of it. On a global scale, homosexuality is a topic that gets very polarized responses with some nations being accepting of it while others are actively against it. This study uses data collected in the 6th wave of the World Values Survey during 2010 to 2014 and quantitative research methods of analysis. It was framed through the idea of Arjun Appadurai's theory of disjuncture which views the world in a series of "scapes" or areas that flow such as media, information, etc. This theory is a way of understanding conflict when scapes collide with one another. In findings, specific scapes (mediascapes and ethnoscapes) have a positive impact on the justification of homosexuality while others have a negative impact. This paper further outlines how the scapes impact the justification of homosexuality and ways in which they can be understood.

Keywords: globalization, disjuncture, homosexuality, Appadurai, justification

Introduction

Homosexuality is a controversial topic on a global scale. Parts of the world are becoming more receptive to the legal recognition of homosexuality through legislative measures such as same sex marriage recognition, whereas other parts are regressing with laws against open expression of homosexuality. These contradicting views have furthered discussion about whether homosexuality is a basic human right or something that societies should be allowed to govern. This research focuses on what factors influence global views surrounding homosexuality and which factors are most beneficial to promoting an increased view in justifying homosexuality.

Theoretical Overview

This research is framed through Appadurai's theory of disjuncture when global elements interact. He defines these elements as flows of globalization in a series of "scapes." He distinguishes five scapes (Appadurai, 1990):

Ethnoscapes: the movement of people and the images they develop

concerning the potentiality of moving. Each imagines its comings and goings, voluntary or involuntary. People move primarily on the basis of the needs of capitalism, the policies of governments, and their won desires. Increasingly, people need to deal with having to move or imagining the likelihood that they will have or want to travel or move. Each person who moves, as well as each who stays, is part of an ethnoscapes, an imagining of the peoples of the world, of where they belong, of where they should go.

Technoscapes: the movement among and between countries globally of "high" mechanical technologies such as the making of microchips and low industrial era mechanical technologies and information technologies. The nature of flow of technoscapes are highly complex, being driven by international labor availabilities, transnational financial transactions, political considerations, the malleability of production processes, and many other factors.

Financescapes: flows of capital through currency exchanges, stock exchanges, speculative ventures, and so on.

Mediascapes: flows of information and images in all forms and the global distribution of the capabilities to produce information and images and distribute them.

Ideoscapes: flow of images and information, specifically political, emanating from states and/or social movements having particularly to do with the Enlightenment ideas of freedom, rights, sovereignty, and democracy that have come to dominate global political rhetoric.

These scapes interact independently on a global scale creating disjunction between ideas on specific topics. Homosexuality is understood differently in each of these scapes; therefore, they provide different views and allow for changes when interacting with each other. The research in this will focus on which scapes promote an increased view of justifying homosexuality and which scapes are detrimental to the view of justifying homosexuality. These scapes can be used as a tool to affect global understanding in a positive manner and can be addressed where negative influences are being perpetuated.

Literature Review

Global views of homosexuality have overwhelmingly been negative as shown in Do Ask, Do Tell which states "in over seventy-eight countries, homosexual acts are illegal and parts of seven countries still retain the death penalty for homosexual acts" (Braun, 2014). This article also explores views of whether global action should be taken by the United Nations General Assembly to model sexual orientation and gender expression under human rights. Adding sexual orientation into an overarching humanitarian practice can in turn help to change these negative views to a positive. These ideals of

formally normalizing homosexuality can also be found in Fernandez's work studying same-sex unions in Europe (Fernandez, 2013). These unions would be recognized sooner on a national level based on an increased anchorage in supranational policy conventions along with increased modernization. Increased modernization in European societies was found to reduce "homonegativity" (Stulhofer, 2009). These areas provided a means for discourse about sexuality to occur. In Turkey, activists have found the Internet to be a promising means of sharing their stories (Gorkemli, 2012).

Other positive influences toward justifying homosexuality have been found in tourism and travel in places such as Mexico that provides visitors an escape from their formalized society and perceived judgment in these locations while on vacation (Cantu, 2002). These opportunities not only provide social haven, but also create financial endeavors by providing lesbian and gay travel (Waitt, 2008). While this travel for social occasion has resulted in more positive views of homosexuality, other formal structures such as immigration has seen struggles in recognizing same-sex unions or marriages that would provide individuals with citizenship and other benefits (Triger, 2012).

While these advances seem to create positive influence in views on homosexuality, other research has found advances by western culture to be viewed as another wave of colonization (Altman, 2004). Modernization has been viewed as a product of western culture and a detriment to diverse local sexual identities (Calixte, 2005). These fears of another wave of colonization stem from initial distrust of colonists that previously delegitimized homosocial behaviors in cultures such as India. The British colonists demand for fitting into social roles created all homosocial behaviors to be categorized in homosexual behavior and was against a law they enacted (Kole, 2007).

The previous research delves into some of the many details within each scape, but there is a lack of seeing which scape has the most beneficial influence. The research also shows some positive and negative influences from globalization. These more often counter, rather than embrace global factors. This research helps show how globalization can counter negative influence that remains from colonization and how using global scapes can have a positive impact.

Methods

This research was conducted on secondary data already collected by the World Value Survey. The survey is a global network of social scientists that collects data from almost 100 countries to reach almost 90 percent of the world's population. The 6th wave of the survey was used in this research which was conducted from 2010 to 2014. The data was used to get a global perspective on the topic at hand. For the purpose of this research the different scapes were operationalized into the best variable provided the survey as follows:

Ethnoscape-V107 How much do you trust: People of another nationality, Technoscape-V68 Future Changes: More emphasis on the development of technology
 Financescape-V101 Wealth Accumulation
 Mediascape-V217 through V224 Information Source: xx
 Ideoscape-V130 Political System: Having a democratic political system
 Mediascape was created through an index of 8 variable regarding information sources: newspapers, magazines, TV news, radio, mobile phone, email/internet, and talk with friends or colleagues. This was an average of all the information sources. The variables were recoded so that the lowest value (1) meant a lack of flow in the scape e.g. "Do not trust at all" "Bad Thing" and the highest values meant a high flow in the scape e.g. "Daily" "Wealth can grow."

This data was then processed using quantitative analysis. I ran frequencies on the dependent variable V203 Justifiable: Homosexuality to determine general information about the world view such as the average and most answered value. I then ran crosstabs and chi-square tests on the dependent variable and the operationalized scapes to determine if there was a significant relationship between them. This would mean that the variables influence each other beyond random chance. I then ran a linear regression model with age, sex, and the operationalized scapes as independent variables to see how they would affect the dependent variable V203. This model will show whether the given independent variables will influence the outcome of the dependent variable and controls for each other so specific factors can be isolated.

Results

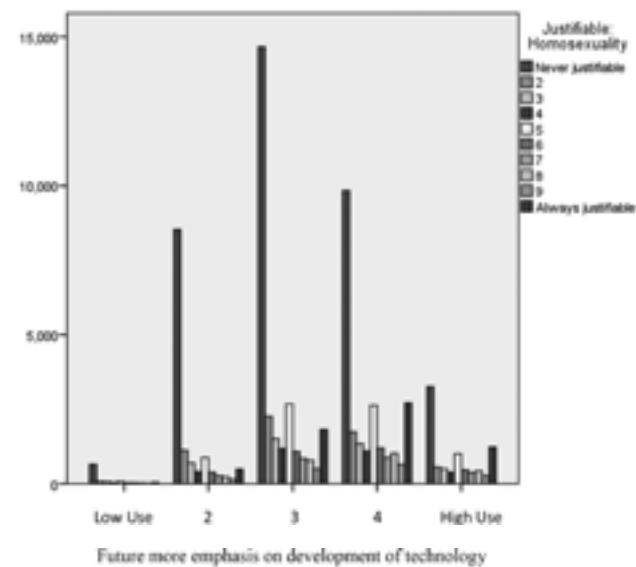
The results of the frequency on V203 can be seen here

Justifiable: Homosexuality		
N	Valid	78241
	Missing	6830
Mean		3.35
Median		1
Mode		1
Std. Deviation		3.052
Minimum		1
Maximum		10

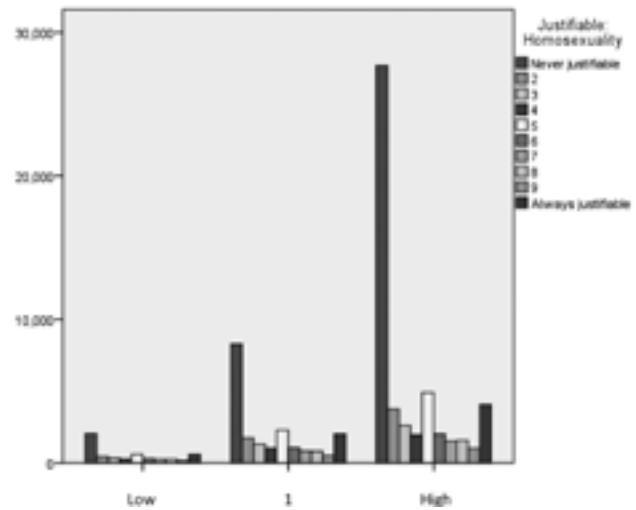
The variable is scaled from 1 = Never Justifiable to 10 = Always Justifiable. On average the respondents found homosexuality to be a 3.35 which is closer to "Never Justifiable" This is seen on the extreme ends with 46% of the respondents selecting "Never Justifiable" while only 8% of respondents selected "Always Justifiable."

The chi-square test found that all the independent variables have a significant relationship with the dependent variable at all alpha levels. This means that all the variables in some way are related to the dependent variable and we can be confident that we are not reporting a type 1 error, or a false-positive. The following tables are from the cross tabs which break down two variables and show how the respondents answered in relation to the other.

Information Source: All Media



Future more emphasis on development of technology



The mediascape and ethnoscapes produced similar graphs. They appear to have a standard bell curve for "Never Justifiable" on the lower end of the scale while having a standard bell curve for "Always Justifiable" on the higher end of the scale for "Always Justifiable." Technoscapes and ideoscapes

also had similar graphs between each other, they appeared to overwhelming rise as values increase. These graphs provide a descriptive into suggesting a positive relationship with ethnoscapes and mediascapes and a negative one with ideoescapes and technoscapes. Finacescapes produced an inconsistent graph that didn't appear to follow a standard curve.

My final analysis brought all the variables previously stated together to model a linear regression as shown.

Table 2 Regression statistics for effects of operationalized ethnoscapes, technoscapes, finacescapes, mediascapes, and ideoescapes while controlling for gender and age on justification of homosexuality

Trust people of another Nationality	0.508***
Future more emphasis on development of technology	-0.464***
Wealth Accumulation	0.001
Information Source: All Media	0.618***
Having a democratic political system	-0.044**
Female	0.340***
Age	0.004***
R ²	0.078***
df	7
N	62622

¹Reference group: Male

*p<.05; **p<.01; ***p<.001, two tailed tests

Source: World Values Survey: 2010-2014

This model has an R² value of .078, meaning it is accounting for only about 8% of the factors that lead individuals to determine their justification for homosexuality. All values were significant at alpha levels except for ideoescapes, which was significant at the .01 level, and finacescapes, which wasn't significant. For every point increase in ethnoscapes there was a .508 increase in justifying homosexuality when controlling for the listed variables. For every point increase in mediascapes on average there was a .618 increase in justifying homosexuality when controlling for the listed variables. Age was significantly not a factor for determining justification of homosexuality when controlling for all listed variables. Females find homosexuality .34 more justifiable than males. Technoscapes decrease justification for homosexuality by .464 for every point increase when controlling for the listed variables and ideoescapes decrease justification by .044 when controlling for the listed variables.

Discussion

The defining piece of this research is the linear regression. It shows that mediascapes and ethnoscapes are the most influential to justifying homosexuality in a positive manner, while technoscapes and ideoescapes have a negative influence. To better understand these results, I focused on four theories:

Bio-power(Foucault, 1978)-Linking of biological processes(or body practices) to economic and political power.

World Polity(Weber, 1914/1978)-Dominant global structures are recreated to be viewed as legitimate within the global sphere

Panopticon(Bentham, 18th Century)-Prison structure wherein inmates cannot know when the guards are watching and must therefore assume accepted behaviors

Solidarity(Durkheim, 1893)-social cohesion and integration broken into two divisions, mechanical which is small scale societies focused on homogeneity, and organic which is larger, industrial societies with interdependent parts.

Overwhelmingly, as shown by the initial frequency, the global has a negative view of homosexuality. This is also shown by the mean of 3.35 with is barely above the lower quarter of the 10 point scale. This aligns with previous research of less modern societies finding homosexuality not justifiable. I understood this basis through world polity theory which states in order to be seen as legitimate in a global sphere, nation-states must enact certain elements that are globally recognized. During colonization, primary nations enacted scripts that portrayed homosexuality as a negative aspect and therefore periphery states had to change all behaviors to fit within that script. This included restricting even homosocial behaviors as they were seen to fit within the category of homosexuality set out by the colonists. These colonies then perpetuated their understanding through formal means such as laws and social structures. This is where technoscapes and ideoescapes most likely are drawing their negative relationship from. They are being recreated time and again as the former colonies are locked in a panopticon type structure where they feel to seem legitimate, they must continue to show behaviors model to them by primary states, even when the primary states no longer control them.

These scripts alone would not hold the states and scapes in a perpetual negative state so I looked into Foucault's theory of bio-power. This ties factors such as populations to economic and political power. Homosexuality is seen as a negative aspect in a population sense as it doesn't procreate for the population, and therefore would have a negative impact on nations that are struggling with manpower and growing their people. In places such as technoscapes and ideoescapes again we would have negative relationships as manpower is very important here.

Finally Durkheim's theory of solidarity helps to explain why these formal structures such as technoscapes and ideoescapes would continue to have negative relationships. These structures can create a form of mechan-

ical solidarity that limits the flow of knowledge and ideas, so individuals and nations get caught recreating the same ideas, whereas ethnoscapes and mediascapes when flowing have a true organic solidarity, which provides new ideas and differing view ideas. The better understanding of formal structures within our global system and what kind of solidarity they are creating can help shape how the scapes impact justifying homosexuality.

Limitations to this research include operationalizing the scapes on the world values survey's variables. I feel that the financescape, ideoescape and ethnoscapes may not be properly capturing the scapes' meanings. Ethnoscapes specifically already has a predisposition to being more accepting other others, whereas a true flow of people would happen regardless of trust. Further research could be done independently with a specifically designed survey into their topic matter. Also further research into the mediascape, as it was the strongest positive influence, could be done to determine which specific media sources helped the most, again looking into the difference between mechanical and organic forms of solidarity, which are more formalized, structured, etc. and their impacts.

Conclusion

This research determined that mediascapes and ethnoscapes have the most positive influence in justifying homosexuality on a global scale. They provide a means to better understand previous research as to why formal structures such as the United Nations may not be the best way to influence opposed nations. Technoscapes specifically had the worse relationship with justifying homosexuality. This may be related to the ways in which we view human capital and should be weighed against the value we would gain or lose from opposing homosexuality. This understanding into the scapes provides us with the tools (specifically the media) to better influence our global to create a more accepting world to justify homosexuality. Further research could be performed by creating a survey specifically designed to operationalize the scapes. Also further research into how media plays a role in justifying homosexuality could create a shared understanding across nations.

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B Vitamin Supplementation in Treating Depression

Melissa L Klemp, MS, RD

Master of Science in Food and Nutritional Sciences

Advisors: Suejung Han, PhD and Carol Seaborn, PhD, RD, CD

Abstract

Objectives:

1. To assess if B vitamin supplementation decreases symptoms of depression.
2. To assess if B vitamin supplementation decreases depressive symptoms in people who take antidepressants yet still experience symptoms of depression.
3. To assess if dietary intake of B vitamins affects the efficacy of B vitamin supplementation in reducing symptoms of depression.

Participants: 33 medicated and unmedicated adult students and staff with depressive symptoms at a small regional university in the Midwest, in February 2013.

Methods: Participants took a B vitamin supplement daily for 28 days. Presence of depressive symptoms was assessed before and after the intervention using the CES-D Scale. Dietary B vitamin intake was determined by two 24-hour food recalls.

Results: There was a significant decrease in depressive symptoms from baseline ($M = 31.4$, $SD = 9.6$) and at post-intervention ($M = 18.9$, $SD = 10.4$), $t(32) = 7.08$, $p < .001$, regardless of medication status and dietary intake of B vitamins.

Conclusions: This research suggests that B vitamin supplementation may reduce depressive symptoms in people whether medicated or unmedicated with antidepressants, and regardless of their dietary B vitamin intake. Larger, placebo-controlled trials using a B complex supplement are warranted to further investigate B vitamins in treating depression, so that mental health professionals have an alternative or adjunct treatment for patients who are unwilling or unable to take antidepressants, or are responding poorly to traditional treatments.

Keywords: B vitamins, B vitamin supplementation, alternative treatment, mental health, depression

Introduction

By 2020, depression is projected to be the second largest health bur-

den worldwide, with an associated \$150 billion in direct and indirect medical and employment costs. Patient adherence to antidepressant treatment using medications can be as low as 25% because of the negative side effects experienced. In low socio-economic populations, the purchase of and adherence to antidepressant drugs is low, so less expensive options are needed. Treatment-resistant depression is found in more than one third of all people being treated for depression, and over 50% of people who positively respond to antidepressant medications do not experience full remission.

Over 50% of the U.S. adult population uses dietary supplements, and over 60% of people being treated for depression have used supplements. Studies investigating the effects of various supplements on depressive symptoms have revealed conflicting results, and there is limited research on most supplements. Deficiencies of various B vitamins have been associated with psychiatric disorders, including depression. Most studies focus on blood serum correlations of some of the B vitamins and depression. However, only a few of those studies included B vitamin supplementation, and sufficiently randomized double-blind placebo controlled trials are lacking.

The various B vitamins are considered in depression because of their impact in certain mechanisms in the body that are linked to depression. Most of the research has explored vitamin B6, folate, and B12 because they are involved in the synthesis and metabolism of the neurotransmitters and mood hormones serotonin, epinephrine, norepinephrine and dopamine. Serotonin is a neurotransmitter thought to contribute to a sense of happiness and well-being, and epinephrine, norepinephrine and dopamine are involved in mood and behavior. Dopamine is specifically used in the pleasure-reward system of the brain. B6 is involved in the synthesis and metabolism of the neurotransmitter γ -aminobutyric acid (GABA), low levels of which are associated with anxiety and depression. Vitamin B6, folate, and B12 are also involved in homocysteine metabolism, facilitating its conversion into other forms, and thereby reducing the amount of circulating homocysteine in the body. Homocysteine is a marker of inflammation and promotes oxidative stress, and high levels in the body are associated with vascular disease, depression, and can affect neurotransmitter function. In patients being treated with selective serotonin re-uptake inhibitors (SSRIs), better treatment outcomes were associated with patients that had higher serum B12 and folate levels.

Less research exists on the remainder of the B vitamins. Thiamin may be involved in depression due to its function in the nitrergic system, which plays a role in neuroendocrine responses. It is also involved in the synthesis of serotonin, and decreased serotonin uptake is found with thiamin deficiency. Tryptophan, an essential amino acid, is needed to synthesize serotonin, and it also synthesizes niacin. Niacin supplementation could potentially reduce the need for tryptophan's conversion to niacin, freeing it for serotonin synthesis. Riboflavin is necessary to activate B6 and folate, both

of which are involved in the serotonin-tryptophan pathway. Lastly, true B5 or biotin deficiencies in humans are rare, but when found depression is associated.

White flour fortification of thiamin, riboflavin, niacin and folic acid is mandated in the United States. Despite B vitamin grain fortification, dietary intake of the B vitamins may still be low in some populations. Less than 10% of women of childbearing age meet the recommendation for red blood cell folate concentration, and most oral contraceptive users have low blood plasma levels of vitamin B6 because these medications negatively impact B6 status. Eleven percent of people who take a supplement with B6 have low blood plasma B6 concentrations, and 24% of non-supplement users are low. Older adults are more frequently deficient in vitamin B12 than younger adults due to lower overall food consumption and reduced production of intrinsic factor in the stomach: an important protein required to utilize B12. In one study, eight percent of healthy adults with adequate dietary intake of B12 still had low B12 blood plasma levels. It is possible that some populations may have a deficiency in one or more of the B vitamins even if they are eating the recommended amounts. The dietary reference standards are for healthy people, and people with depression do not fall into that category and are therefore a population in which to consider nutritional deficiencies.

An assessment of the effectiveness of B vitamin supplementation to reduce symptoms of depression in adults could be helpful to ascertain if B vitamins should be considered as adjunct therapy for people already taking antidepressant medications, or for people who are unable or unwilling to take antidepressant medications. The purpose of this research is to investigate the effectiveness of B vitamin supplementation in reducing symptoms of depression. This research explored the following hypotheses:

1. H1: B vitamin supplementation will decrease symptoms of depression.
2. H1: B vitamin supplementation will decrease symptoms of depression in people who take antidepressants yet still experience symptoms of depression.
3. H1: There will be a reduction of depressive symptoms in people regardless of adequate or inadequate B vitamin intake.

Materials and Methods

Participants

The IRB of the university, where data was collected, reviewed and approved this study. All subject participation was voluntary. Participants were recruited via advertisements placed on campus, and an email sample of 50% of students and staff from a computer randomized email list made available from the university's research office. The advertisement offered free B vita-

mins for one month, a chance to win a \$50 gift card, and the possibility of a reduction in depressive symptoms. Exclusion criteria included any co-existing psychiatric disorder except anxiety disorders, metabolic conditions or medications that prevented B vitamin usage, regular current use of B vitamins, and pregnant and nursing women.

There were 35 participants at the start of the study, medicated and unmedicated adult students and staff with depressive symptoms. One subject failed to complete the final questionnaire and one subject discontinued the study due to difficulty focusing and a "mild depressive breakdown." Thirty-three participants completed the study including 21 females (63.6%) and 12 males (36.4%). Participant age ranged from 19 to 63 years ($M = 28.3$, $SD = 13.7$), with a median age of 21 years. Participant BMI ranged from 17.9 to 49.0 kg/m² ($M = 28.4$, $SD = 8.3$) (Table 1). Twenty-four participants (72.7%) were not taking antidepressant medications and nine participants (27.3%) were taking antidepressant medications which included: Bupropion (Wellbutrin), Citalopram, Fluoxetine (Prozac), Nortriptyline, Sertraline (Zoloft), and Venlafaxine.

Table 1

Participant Body Mass Index (BMI)

BMI Category	Frequency (N=33)	Percentage
< 18.5 Underweight	1	3.0%
18.5 - 24.9 Normal	13	39.4%
25.0 - 29.9 Overweight	7	21.2%
30.0 - 39.9 Obese	7	21.2%
≥ 40.0 Morbid obese	5	15.2%

Instrumentation

The Center for Epidemiologic Studies Depression (CES-D)36 scale was used to assess depression. A score ≥ 16 on the CES-D is considered indicative of clinically significant depression. A questionnaire was created with Qualtrics using the CES-D questions and questions about medication usage, age, gender, alcohol consumption, and smoking status. Alcohol consumption and smoking were assessed because both negatively impact B vitamin usage in the body.^{20,37} The CES-D was administered again at the end of the intervention. Two 24-hour food diaries were taken to assess usual B vitamin intake. Participant height and weight was taken to enter into the diet analysis software for BMI calculations to determine the representative weight categories.

The B vitamin supplement given to the participants to consume was a complex called Glycogenics®, developed and manufactured by Metagenics, Inc., headquartered in Aliso Viejo, California. Per the supplement facts panel, each Glycogenics® tablet contains the following B vitamins: thiamin (as thiamin mononitrate) 14 mg (933% Daily Value (DV)); riboflavin 16 mg (941% DV); niacin (as niacinamide and niacin) 200 mg (1000% DV); pantothenic acid (as D-calcium pantothenate) 75 mg (750% DV); vitamin B6 (as pyridoxine HCl) 22 mg (1100% DV); biotin 250 mcg (83% DV); folate (as folic acid and L-5-methyltetrahydrofolate) 400 mcg (100% DV); vitamin B12 (as cyanocobalamin) 250 mcg (4167% DV). Glycogenics® also contains other ingredients to promote B vitamin absorption: vitamin C (as ascorbic acid) 125 mg (208% DV); choline (as choline bitartrate) 100 mg; inositol 94 mg; para-aminobenzoic acid (PABA) 15 mg. Each ingredient was not confirmed by independent testing.

Procedure

Participants individually met with the researcher at a university laboratory and signed an informed consent form, completed the CES-D questionnaire and questions regarding age, medications, frequency of alcohol consumption, smoking status, and gender. Next, height and weight were measured, and their 24-hour food diary was collected. Participants were then given a 28-day supply of B vitamins with instructions. Participants took one tablet daily for 28 days. Participants received a reminder email and returned 28 days later and completed the post-intervention CES-D questionnaire and comments to report possible positive or negative effects that occurred. A second 24-hour food diary was collected as well as any unused tablets to assess compliance.

Data Analysis

SPSS 19.0 was used to analyze the data. A paired samples t-test was conducted to determine if there was a significant difference between the participants' baseline CES-D scores and post-intervention CES-D scores. A univariate ANOVA was conducted to assess if there were differences in the reduction of depressive symptoms between the medicated and unmedicated participants, between participants with dietary inadequacy in six or more B vitamins versus those with dietary inadequacy in two or fewer B vitamins, and between male and female participants. Participant gender, age, height and weight were entered into the diet analysis software Food Processor, which was used to determine individual B vitamin needs and to analyze the B vitamin content of subjects' diets. The program compared participants' estimated nutrient needs with actual consumption to assess whether their dietary intake of the B vitamins was adequate or inadequate based on reference standards.

Results

The range of participant CES-D scores at baseline was 15 to 52 ($M = 31.4$, $SD = 9.6$). One subject had a baseline score of 15, which is less than the generally used cut-off score of 16 that indicates clinically significant depression. A score of 16 was not necessary for the purpose of this study, because a diagnosis or screening for clinical depression was not needed to participate. A paired samples t-test was conducted to compare participant baseline CES-D scores with their post-intervention CES-D scores. There was a significant decrease in participant CES-D scores from baseline ($M = 31.4$, $SD = 9.6$) and at post-intervention ($M = 18.9$, $SD = 10.4$), $t(32) = 7.08$, $p < .001$ (Figure 1). Hypothesis 1 (H1), that B vitamin supplementation would reduce symptoms of depression, was supported. The effect size, d , was 1.23, a large effect.

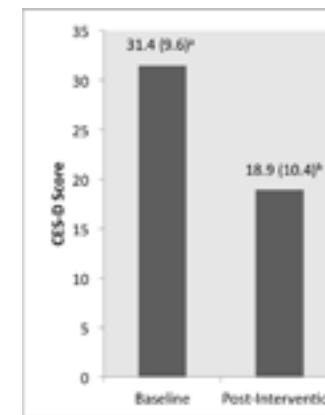


Figure 1. Change in the participants CES-D depression score average from baseline to post-intervention; $a < b$, $p < .001$.

There was no significant difference in the reduction of CES-D scores between the medicated ($N = 9$, $M = -9.22$, $SD = 8.64$) and unmedicated ($N = 24$, $M = -13.62$, $SD = 10.49$) participants, $F(1, 32) = .603$, $p = .445$, showing that both groups experienced a similar reduction in symptoms of depression. Hypothesis 2 (H2), that B vitamin supplementation would reduce symptoms of depression in people who take antidepressant medication, but still experience symptoms of depression, also was supported. No participant taking medication reported a change, addition, or subtraction to their medications. No participant not taking an antidepressant medication reported starting one during the trial.

Eleven participants (33.3%) had inadequate intake of six or more of the B vitamins, and 22 participants (66.7%) had inadequate intake of two or fewer of the B vitamins (Table 2). There was no significant difference in the reduction of depressive symptoms between the group inadequate in six or more B vitamins ($M = -14.18$, $SD = 4.05$) and the group inadequate in two or

fewer of the B vitamins ($M = -11.55$, $SD = 12.03$), $F(1, 32) = .058$, $p = .811$, showing that both groups experienced a similar reduction in symptoms of depression regardless of their dietary B vitamin intake. Hypothesis 3 (H_3), that dietary intake of B vitamins would not affect the efficacy of B vitamin supplementation in reducing symptoms of depression, was supported.

Table 2

Participant Adequacy of Dietary Intake of B Vitamins

B Vitamin	Adequate Intake	Inadequate Intake
B1 (thiamin)	14 (57.6%)	10 (42.4%)
B2 (riboflavin)	20 (60.6%)	13 (39.4%)
B4 (niacin)	26 (78.3%)	7 (21.7%)
B5 (pantothenic acid)	13 (39.3%)	22 (60.7%)
B6 (pyridoxine)	18 (54.5%)	15 (45.5%)
B7 (biotin)	11 (36.3%)	22 (63.7%)
B9 (folic acid)	14 (42.4%)	19 (57.6%)
B12 (cobalamin)	22 (66.7%)	11 (33.3%)

Mean $M = -11$

A supplementary analysis of this research was performed to determine if there were gender differences in the reduction of symptoms of depression, because gender differences in correlations and response to B vitamin supplementation in research is conflicting.^{14,17,19,28,38} Sometimes only women benefit from higher B vitamin intake, sometimes only men benefit, and sometimes both or neither groups benefit.^{14,17,19,28,38} There was no significant difference in the reduction of depressive symptoms between women ($M = -12.67$, $SD = 9.58$) and men ($M = -12.00$, $SD = 11.35$), $F(1, 32) = .007$, $p = .936$, showing that both groups experienced a similar reduction in depressive symptoms.

Discussion

The study results support the first hypothesis, that B vitamin supplementation would decrease symptoms of depression, with a significant decrease in depressive symptoms with a large effect size. Participant scores dropped an average 12.5 points on the CES-D scale after taking a B complex vitamin for 28 days. Previous research showed a trend towards a decrease in depressive symptoms with higher B vitamin intake or blood serum values as well as with B vitamin supplementation, but there was also opposing research. The data may conflict because the studies explored three or fewer B vitamins, yet the mechanisms of the B vitamins are often connected. An example is that riboflavin is needed to activate vitamin B6 and folate,²⁰ yet trials with vitamin B6 and/or folate supplementation do not include riboflavin, nor was riboflavin status assessed.^{9,10,11,19} A search of the EBSCO, PubMed, and

Google Scholar databases revealed no animal or human subject trials using a B complex supplement to treat symptoms of depression. The B vitamin supplement used in this research gave the full complement of B vitamins, which was unlike other similar research, and may be why a positive large effect was found.

The main weakness of this study was that there was no control group with which to compare the treatment group, so it is unknown whether the results are due to the effect of the B vitamin supplement. This is the same weakness encountered in most of the available research on B vitamin supplementation in treating depression. Each participant in this study was informed that there was no expectation that B vitamins would affect depressive symptoms either positively or negatively. In depression studies that have a placebo group, on average, 30% of the participants in the placebo group experience positive effects, and 50% of the participants in the treatment group experience positive effects.³⁹ In this study, over 50% of the participants experienced a significant reduction in their depressive symptoms, although that does not exclude the possibility that the results were due to participant expectations. The large effect size in this study, $d = 1.23$, is much larger than the moderate effect sizes found in most depression studies which have a Cohen's d range of 0.19 to 0.51,⁴⁰⁻⁴² so it is less likely that the improvement in depressive symptoms was due to participant expectation.

The study results support the second hypothesis, that B vitamin supplementation would decrease symptoms of depression in people who take antidepressants yet still experience symptoms of depression, as there was no difference in the reduction of depressive symptoms between medicated and unmedicated groups. The bulk of research in treatment-resistant depression found on the EBSCO, PubMed, and Google Scholar databases focuses on dosage and drug substitution rather than possible nutrition connections, but some individuals described in case studies that were given B vitamin supplementation were able to reduce the dosage and number of their antidepressant medications.^{13,43}

The study results support the third hypothesis, that there would be a reduction of depressive symptoms in people regardless of adequate or inadequate dietary B vitamin intake, with no difference found in the reduction of depressive symptoms between the two groups. Only four participants had adequate dietary intake of all of the B vitamins, achieved by consuming much more than their recommended caloric intake. Overall participant diet quality was poor, but even in participants that had healthier, balanced diets, adequacy in all of the B vitamins was not achieved, which was an unexpected result. This may be due to the study limitation of the two self-reported 24-hour food diaries, as participants may have over or underreported the amount and types of foods consumed. Although 24-hour food recalls and food diaries are considered more accurate than Food Frequency Questionnaires in assessing

average food intake, and studies generally limit the amount of food recalls or diaries taken to no more than three days because of the time consuming nature of the data entry involved,⁴⁴ obtaining more food records would have likely improved diet intake accuracy. Measuring the participants' vitamin B blood levels would have improved the study. From the diet results gathered in this study, a B vitamin supplement may be a viable option, because the expectation that most people are able to transform their entire diet to meet their B vitamin needs while not exceeding their caloric requirements may not be realistic for all patients, with consideration to individual lifestyles, severity of depression, and if they have access to, seek out, or are referred to a Registered Dietitian or other qualified licensed nutritionist. This is especially important to consider in patients with vegan and vegetarian diets, and those with poor quality diets, which may be lower in B vitamins. Children may also benefit, as many antidepressants are not approved for use in children, and associations between low B vitamin intake and depression were found in adolescents.³⁸ Women who take oral contraceptives could also potentially benefit. A side-effect of oral contraceptive use for some women is depression, which may be due in part because oral contraceptives negatively impact B6 status and cause abnormal tryptophan metabolism.^{33,45-46} High doses of B6 supplementation were found useful in treating depression in pre-menopausal women and those taking oral contraceptives.^{33,45-46}

Each person has a unique metabolism and genetic make-up, and it is possible that some people do not adequately utilize the B vitamins available to them and need a pharmacological dose of one or more of the vitamins, as opposed to simply meeting reference standards. The dosage of B vitamins used in the study was well above the Recommended Dietary Allowance, except for folate and biotin. It may be possible that some people who experience depression cannot meet the quantity of B vitamins needed for optimal health from the diet because there is an underlying metabolic issue or additional disease state that requires a higher B vitamin intake, such as with many gastrointestinal disorders.²⁰ Metabolic implications are seen in the varying positive and negative effects reported by the participants, such as increased or decreased appetite, increased energy and alertness, and having an easier time waking up in the morning. Although the effects may not be due to the B vitamin supplementation, B vitamins play vital roles in human metabolism. It was beyond the scope of this study was to assess individual participants' ability to absorb the various B vitamins. Assessing the body's efficiency in metabolizing the B vitamins in the depressed person would be an important next step for further research.

Potential confounding factors accounted for were smoking status and alcohol consumption frequency. Cigarette smoking causes depletion in the body of all of the B vitamins,³⁷ but since only 4 participants smoked, it is unlikely that smoking status influenced the results. Alcohol inhibits the

absorption and utilization of B vitamins (particularly thiamin), increases their excretion, and causes the destruction of some (particularly folic acid).²⁰ One participant drank nearly every day, followed by a gap in frequency in alcohol consumption to "once or twice a week," with the majority of participants (69.7%) consuming alcohol "once or twice a month" or less. Therefore, it is unlikely that alcohol consumption influenced the results. The two self-reported 24-hour food diaries may be a study limitation, as the amount and types of foods consumed may have been over or underreported. Participant life situations or other unknown variables could have affected the results.

Conclusions

This research suggests that B vitamin supplementation, particularly a B vitamin complex, may reduce depressive symptoms in people whether medicated or unmedicated, and regardless of dietary B vitamin intake or gender. There is evidence that B vitamins play a role in depression and that supplementation may help alleviate symptoms of depression, but there is little research on B vitamins in the treatment of depression, and very few available trials are human trials. Larger, placebo-controlled trials using a B complex supplement are warranted to further investigate B vitamins in treating depression. Future research could assess if there is a difference in the effectiveness of B vitamin supplementation in reducing symptoms between mild, moderate, and severe depression. Health care professionals should consider B vitamin supplementation in patients who are unwilling or unable to take antidepressants, or are responding poorly to traditional treatments, particularly if a deficiency is assessed through blood tests, or if the patient has poor diet quality or other risk factors. B vitamins are a simple and inexpensive alternative or adjunct treatment option. More studies and conclusive evidence could improve efforts to inform mental health practitioners of the association between nutrition and depression.

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Torture in Art Throughout History

Anna Danielson¹

Graduate, Graphic Design

Advisor: Lopa Basu

Abstract

Art is a valuable asset in drawing attention to difficult issues in a different way. Controversial and taboo subjects, such as torture, are often ignored in people's daily lives, but no subject is off limits in the art world. Exposing people to artwork that depicts torture provides them with a starting point to begin a conversation with others about a difficult subject or to dig deeper into their own minds. Sometimes the best work of art is not the most visually pleasing or beautiful, but is instead the piece that connects to the viewer emotionally and makes them think about why it was created. By looking at the portrayals of torture in art from before 1275 B.C. through present day, I was able to learn about the reasoning behind why torture was used and why an artistic documentation was necessary. I continued my research of torture depicted in art by creating my own digital painting and an accompanying artist statement.

Keywords: art, controversial, taboo, torture

Torture in Art Throughout History

In art, the human body is celebrated; in many famous paintings and sculptures the subject is nude or scantily clothed. When studying art, students are taught to see these pieces for their visual qualities and the techniques that were used in their creation. This approach allows the students to learn how to critique art no matter their personal opinions on the content of the piece. However, sometimes it is impossible to look at certain works of art and see beauty behind the image when they are portraying terrible events like torture. Today torture is typically a topic too taboo to talk about in daily life, but in the art world no subject is off limits. How does the depiction of torture in art affect the viewer, and what is the purpose of its creation?

Torture has been portrayed in art since before 1275 B.C., but the reasons behind why torture was used and documented in an artistic way have changed throughout time. In the Renaissance era, torture was commonly used as a punishment for criminal acts. While the act of torture took care of the legal consequences that were mandated for breaking the law, it was also seen as a beneficial act for the criminal. In this time period, religion and spirituality played a major role in how people lived their daily lives. When a

person committed a crime they were not only breaking a law created by the government, but they were also going against the word of the Lord. The pain and suffering that torture produced was seen as a way for criminals to take on similar qualities to Christ and hopefully provide them with the possibility of salvation. Salvation would only be an option if the criminals repented for their sins; if no repentance occurred the pain that they experienced would be seen as foreshadowing the cleansing trials they would experience in Purgatory or what they would endure during an eternity in hell. Other art forms such as writing and preaching also enforced the belief that people needed to live their life devoted to Christ and his teachings. Jonathan Edwards' sermon, *Sinners in the Hands of an Angry God*, used intense imagery and language in the hope that the sermon would awaken the audiences to the terrible reality that awaited the sinners of the world. To discourage others from committing the same crimes, an artist would be hired to create a visual record of the punishment of the wrongdoer. These powerful images would be displayed in areas of high traffic, such as a town square or in a church, where all of the citizens could witness the consequences of breaking the law (Guzik 22).

Artistic renderings of torture were not just limited to criminals. Many churches commissioned a series of paintings or frescos that depicted the saints undergoing their trials and tribulations, usually in the form of torture. Saint Bartholomew, for instance, was skinned alive because he was spreading Christianity against the king's orders (Please refer to Figure 1, p. 203). The main visual distinction in the portrayals of saints and sinners in art is how the face and body are portrayed. Saints are usually illustrated in a delicate way that suggests purity; they show little to no emotion because they are dying for a religious purpose that they believe in. Those who were punished for committing a crime are typically created using high contrast (extreme darks and lights) with their faces and bodies contorted in agony.

This difference between the bodies of the innocent, repentant, and guilty can be clearly seen in Lucas Cranach's woodcut, *The Crucifixion* (Please refer to Figure 2, p. 203). The middle figure, Jesus Christ, is in a serene position and seems to be unaffected by the pain he should be enduring. Jesus' lack of emotion can be related back to his decision to use his suffering as a tool to create salvation and redemption for the children of God. The two thieves that flank Jesus' sides on the other hand show varying amounts of distress and agony. While both of the thieves display the pain they are feeling in their faces and bodies, the one on Jesus's right hand side is depicted in a more tranquil form because, according to Luke 23:39-43, one of the thieves repented for his sins while the other simply hurled insults at Jesus. Many early depictions of Jesus' crucifixion draw attention to the positive message of resurrection instead of the physical realities of execution but in recent artistic portrayals, such as Mel Gibson's *The Passion of the Christ*, they focus more on Jesus being human and capable of suffering. This allows people to relate

¹ Anna was in the Honors College of UW-Stout (Ed.)

better to the sacrifice he endured for them.

In the present age, religion does not play as large of a role in torture as it did in the Renaissance era, and the rationale in using torture has moved away from a form of punishment to an interrogation technique. With the end of the Cold War, the United States' involvement in torture seemed like a thing of the past. That was certainly the case until the 9/11 attacks brought torture back into the public's eyes (Pallitto 490). Because of the attacks on the Twin Towers, the search for members of the terrorist parties led the United States military overseas where they imprisoned alleged terrorists in Abu Ghraib, Iraq. Torture was used by the military in these situations as a way to obtain information from a source that was unwilling to share what they were hiding. While torture can sometimes produce reliable intelligence it is not the best way to gather information, especially when the people being held captive are innocent and are in no way involved with terrorist groups. *Taxi to the Dark Side*, the documentary film, begins with the unsolved murder of an innocent Afghani taxi driver who was taken for questioning and ended up dying from excessive physical abuse. The film uses this specific example as a starting point to explore the reasoning behind the corrupt techniques that were being used for interrogation purposes, and looked at the public backlash that was created when the Abu Ghraib photos were leaked. The public's response to the newfound knowledge of what their military was doing caused great controversy, and artists took the opportunity to capture the pain and suffering of the prisoners on canvas and stone.

Fernando Botero, a famous figurative artist that is known for his depiction of overweight and inflated figures (Please refer to Figure 3, p. 204), created a series of over eighty drawings and paintings as a reaction to the photos that were leaked from the Abu Ghraib prison (Please refer to Figure 4, p. 205). He used these paintings as a way to express his anger at the hypocrisy of the entire situation. He abandoned his traditional style to better represent the anger he needed to get out of his system; his usual inflated figures were transformed into muscular and solid beings. Botero created these paintings quickly by using harsh brush strokes and dark, dirty colors. This series has been shown all over the world, but it does not provide the typical evening at the museum experience. The drawings and paintings feature nudity, blood, bodily functions, and humiliating scenarios that allow the viewer to empathize with the prisoners like they were never able to before (Baker). Botero once said: "...art is important in time, it brings some kind of reflection to the matter. We have analyzed this thing [the infamous Abu Ghraib photographs] from editorial pages and books, but somehow this vision by an artist completes what happened. He can make visible what's invisible, what cannot be photographed."

In a photo, a photographer just clicks a button to capture a certain moment in time, but an artist has to put in time and energy. This concentra-

tion of energy and attention brings additional depth and emotion to a subject that other media cannot fully replicate.

Artwork depicting torture is a valuable way to draw attention to the issue in a different way. Like Botero said, art has a part of the artist's energy and soul in the piece, which allows for a unique and emotional viewing experience. Sometimes, the best work of art is not the most visually pleasing or beautiful. It is instead the piece that connects to the viewer emotionally and makes them think about why it was created. It does not matter if the artist used the correct techniques or visual qualities; the importance of paintings and sculptures that feature torture is not based on how they were created but why.

Artist Statement

As an artist, I try to create pieces that the viewer can emotionally relate to even if they are unsure about the reasoning or story behind the work. *Tortured Soul* was created to bring awareness about the people that were captured after 9/11 as suspected terrorists and what they endured while in captivity. I took inspiration from Marc Falkoff's book *Poems from Guantanamo: The Detainees Speak*; the poems in this book gave me a chance to look into the minds of the prisoners and helped me to understand what they were going through emotionally as well as physically. The emotions I felt while reading these poems needed an outlet and through the creation of *Tortured Soul* I was able to make a visual representation of the feelings I experienced. *Tortured Soul* is a digital painting that metaphorically represents the alleged terrorists being imprisoned at Abu Ghraib and Guantanamo Bay. This is done through the use of different techniques and the visual correlation between the imagery and their implied connotations. A majority of the prisoners being held were older, but through the use of young and childlike facial features I was able to represent the innocence of the people who were being held captive. These people were held captive for no reason other than being taken by a bounty hunter on a whim or being in the wrong place at the wrong time. The dark, monochromatic color scheme signifies the depression and isolation that accompanied their fear and humiliation. I emphasized this feeling of hopelessness by creating a sense of endlessness filled with the fear of the unknown. This was done by having the figure swallowed by a dark expanse that extends to the edges of the piece. With the juxtaposition of the soft and hard edges throughout my digital painting, I was able to create a visual representation of the deterioration of the prisoners' minds and bodies as they were being tortured for information that they did not have (Please refer to Figure 5, p. 206).

The best part about art is that there is no single way to view and interpret it. Art uses our own personal experiences, thoughts, and feelings to lead us on a journey of discovery and inspiration. For my digital painting I

did not want to steer anyone's thoughts in a certain direction; I wanted them to look at it and ponder about how it made them feel. I created this piece to connect to the audience on an emotional level as well as bring torture back to the forefront of our minds. Torture is a topic that people typically only hear about on the news when a big event is happening, but unfortunately torture is not limited to those publicized events. It goes on every day all over the world. Torture is used to break a person down mentally and physically, and the images I referenced showcased so much pain and emotion that I felt obligated to replicate that emotion in my own piece. Through the creation of this piece I was able to approach a difficult topic and experience deep emotions in a safe environment. I wanted to provide this experience to other people through the creation and display of my digital painting. Torture is a subject matter that does not normally get discussed, or is shown in a way that creates a safe environment to explore deep emotions and thoughts.

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Figure 1: Martyrdom of Saint Bartholomew
Fresco in Santi Nero e Achilleo

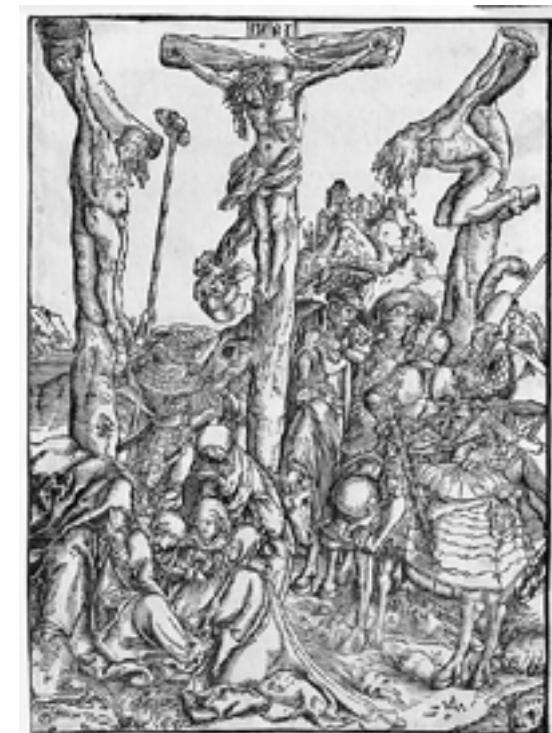


Figure 2: The Crucifixion
Lucas Cranach the Elder
German, Kronach 1472–1553 Weimar

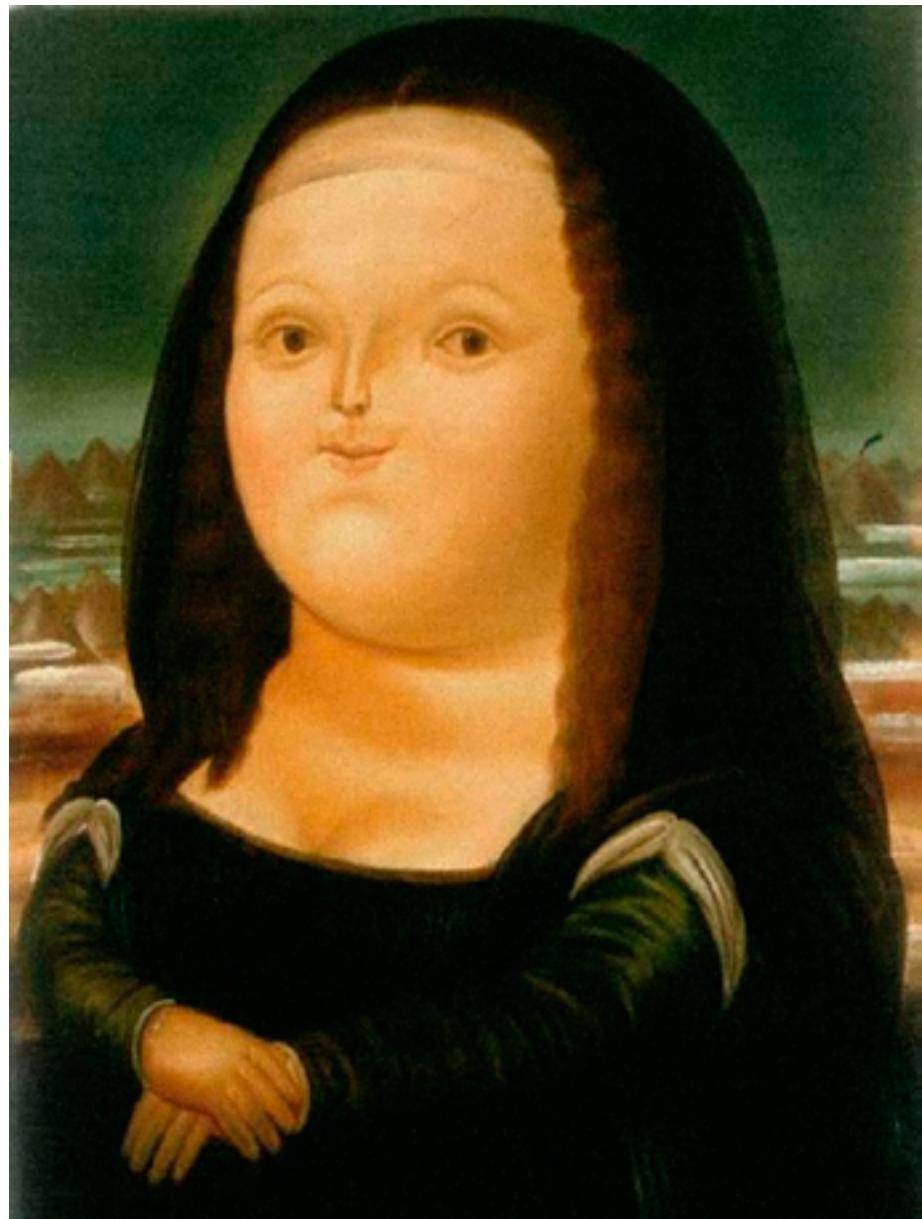


Figure 3: Mona Lisa
Fernando Botero
1977



Figure 4: Abu Ghraib Painting 52
Fernando Botero
2005



Tortured Soul
Anna Danielson
2014

The Absence

Koua Xiong

Mentor: Bryan Ritchie

Absences fill our lives. As an abstraction of the nonexistent, these variables can present themselves in myriad and miscellaneous forms. Sometimes they begin as an insignificant loss, but with time they become a considerable burden. But on other occasions they erupt as bursts of agony, and develop into a more durable suffering, the intensity of which the host feels varies upon the absence of the object, person, place, or thing. It is even possible for the host to be unaware. However, being ignorant of the variable does not equate to being free. For absences are parasitic, they exist to be fulfilled. And it is how we choose to fulfill them, that defines us.

The motivation for my oeuvre can be traced to my primary absence. My interest in themes of sexual deviancy, dualism, spirituality, and the consequences that ensue were an investigation into how and why I've dealt with the absence. And inversely, the series of work presented thrusts the Absence into the foreground.

Being a gesture of resolution, this series is a narration of the relationship between myself and it. Each form, a conceptual entity manifested, is an embodiment of who I am, being affected by the Absence. The entities represented are my sexuality, identity, and spirituality. The final piece is the confrontation between myself and the Absence. To present the symbiotic bond between myself and the Absence, I employed the usage of the void. The presence of a void is the closest physical representation of an Absence. With the addition of the void, the objects are distorted, changing the context of each piece by making it incomplete. To refill the now empty slot, light and shadow acted as a form of concealment. However, as light and shadow are also intangible sources, whether they are penetrative or obscuring voids is speculative.

My intent is to portray my relationship with an absence, and request the audience to question how they interact with their own, or if they simply choose to remain absent.



GLORY / Feed Me [Lies],
wood and gold leaf, 10' x 4' x 2", 2015

The light that pierces the oculus creates a circular shape, hidden behind the door, symmetrically lining itself in-between the corner of both walls.



TRUCE / Five Years [Wasted] In Search Of Oneself,
acrylic and wood on steel, 5' x 4' x 2", 2015

There are five acrylic sheets, each coated in a different shade of yellow paint, resting within the wooden container.



DEFEAT / It [Conformity] Is Inevitable,
rice in knit fabric and steel, 4' x 4' x 4', 2015



THE END / I Love[d] You, But...,
performance, 15 minutes, 2015
The performer destroys a cherished icon of love, using scissors, while staring
into the mirror. He is playing both himself and the icon's original owner,
assuming the roles of recipient and giver.

Bad Feminist (for Roxane Gay)

Tiffany Lange

Mentor: Daniel Atyim

"I embrace the label of bad feminist because I am human. I am messy. I'm not trying to be an example. I am not trying to be perfect. I am not trying to say I have all the answers. I am not trying to say I'm right. I am just trying—trying to support what I believe in, trying to do some good in this world, trying to make some noise with my writing while also being myself." -Roxane Gay

My work explores topics of feminism and how growing up in the Midwest has influenced it. In *The Role of Feminist Aesthetics in Feminist Theory*, Hilde Hein explains feminism as, "The perspective that women bring to experience as subjects, a perspective whose existence has heretofore been ignored." This idea is extremely important to my work because I question what a traditional painting is and how it can change to fit my own experiences of being a female in contemporary society.

As I grew up, my grandmother made quilts and decorated cakes in her spare time. I was always intrigued by what she was doing and the amount of work and time that was dedicated to it. She taught me these skills and the importance of learning how to be able to do things on my own, which is a very Midwestern sensibility. I recently began using sewing material to explore how craft has influenced my work. This exploration includes the idea of "women's work" through the build up of lines of thread created by sewing. When these ideas of craft are brought into the twenty-first century art-world, much of them can be dismissed and overlooked because women's work has been devalued and viewed more as kitsch. By bringing craft and women's work into a contemporary framework, I encourage the audience to have a conversation and question the definition of painting in fine art.

I draw inspiration from the contemporary artist, Diana Molzan, for her use of traditional painting materials, particularly her unconventional use of the canvas. She has been deconstructing painting and turning canvas into sculpture. Another artist I am interested in is Angela De La Cruz because she has transformed the idea of painting. In most of her pieces she manipulates the stretcher bars to rearticulate the idea of painting and allow it to exist in a three dimensional space.

In the Bad Feminist series, I have created pieces that elicit emotional and physical weight by letting the canvas fall in a natural state. As seen in my piece, *Pink Noise*, I utilize the folds to reference the body and the weight that is on women's shoulders. The line work directly relates to Roxane Gay's term of "bad feminist" by being human and not being perfect. I want my work to

be truthful to who I am as a person. It allows the viewer to reflect on what a traditional painting should be and how being female can affect the work that is being produced.



Exhale, Canvas and Thread, 12x12x5 1/2inches, 2015



Pink Noise, Canvas and Thread, 12x12x6inches, 2015



Pink Noise Detail, Canvas and Thread, 12x12x6inches, 2015



The Double Burden, Canvas, Oil, Cold Wax, and Patterned Fabric,
12x22x5.5inches, 2015

Karlaya Lee

Mentor: Charles Matson Lume

A colleague once described my work as "sophisticated glitter." The idea that glitter, which is a cheap material and considered kitsch, may be transformed into sophistication, has compelled me to create works of art that are self-contradicting. My work examines how complexity and simplicity occupy the same space.

My collages, drawings, and paintings depict both abstraction and representation. These two-dimensional works begin with uncertainty and angst. This investigation into the unknown causes me to be present and open to what the work is communicating. Through intuition, chance, and exploration, a composition starts to emerge. This ambiguous and humbling way of making leads to unpredictable and sometimes regrettable outcomes. To obtain control of the work, I set boundaries such as limited color pallet and limited gestures. By using economy of mark making and form, my work is simplified and straightforward. This repeated dialogue between intuition and restraint is evident through my studies. The reward of this process comes when it produces work that is unplanned and surprisingly fresh. A two-dimensional work of art is complete when it produces an aesthetic response in me that balances the two voices and was not preconceived.

My more sculptural paintings investigate the relationship between painting and sculpture. They explore expectations and exploit definitions of painting. They oppose the traditional idea of a painting as a window, by using flat planes of color. As they reach into and inhabit three-dimensional space they confront the viewer. My three-dimensional works are complete when they are on the cusp of either a painting or sculpture.

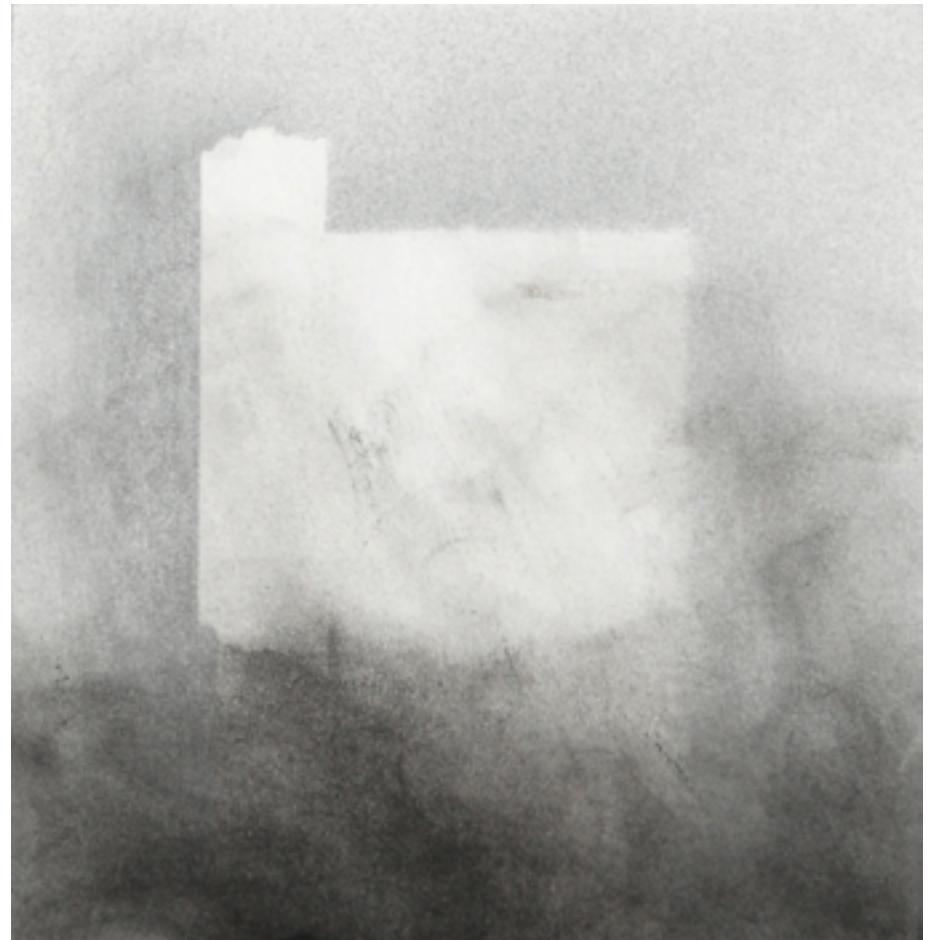
karlayalee.weebly.com
mnartists.org/karlayalee



The Danger of Over-Crediting, acrylic on canvas, 12" x 12", 2015



Gravity #1, latex paint and glitter on panel, 5' x 3' x 3', 2015
(The panel is covered in an extremely fine white glitter.)



Cover, charcoal and spray-paint on paper, 9" x 9", 2014



United, sterling silver and pine, 8" x 5" x 1/4", 2015

Projections

Raine Nimmer

Mentor: Masako Onodera

Lost objects intrigue me. Lost objects have been tossed aside by someone who had assumed they were useless, while others were unknowingly dropped on the sidewalk or street. Some were deliberately thrown into the trash because they could not be fixed, or the previous owner would rather replace the item with a new model. The object is "lost" because it is no longer used for its intended function. I look, listen, experiment, and discover, in an attempt to manifest a new presence through jewelry. But the result is more than jewelry. The result is an awakening, a new voice, and longevity.

Find lost object.

Tell it, "I love you."

Dismantle it piece by piece.

Arrange into categories:

Material, color, size.

Experiment:

Bend,

Burn.

Cut,

Tie.

Push,

Pierce,

Pull.

Innate properties are discovered.

Blend the pieces as a painter blends paints.

Blend them to create new hues,

Forms,

Textures.

Paint them in space,

In time,

On the body.

Something enticing emerges.

A new beginning.

A second chance.



Projection #2, (brooch), 2014, 9 x 2 1/4 x 3/4 in, parts from a discarded projector (aluminum, rubber, one screw), sterling silver; hand cut, formed, soldered, fabricated.



Projection #3, (neckpiece), 2014, 12 x 10 x 2 in, parts from a discarded projector (aluminum, rubber, screws); hand cut, formed, fabricated.



Detail of *Projection #3*



Projection #4, (ring), 2015, $1\frac{1}{2} \times 1\frac{1}{4} \times 1\frac{1}{4}$ in, parts from a discarded projector (aluminum, rubber), sterling silver, epoxy, hand cut, pierced, soldered, fabricated.